

MAY 27 1940

BUSINESS WEEK

WEEK
AGO



YEAR
AGO



Billions for defense—and the heavy industries.

SAVES \$1,656 *per drive!*

Another true case history from the Allis-Chalmers files that proves "IT PAYS TO BUY THE EQUIPMENT THAT PAYS FOR ITSELF"

Large Pulverizing Company Saves \$1,656 Per Year PER DRIVE by Changing to Allis-Chalmers Texrope Drive! Learn How You Can Get Extra Savings . . . With the Equipment That Pays For Itself!

When you run your drives 24 hours a day, 300 days a year, you've got to have drives that give you the best service . . . at the lowest possible cost! And when you install a drive that saves you 23c an hour . . . \$1,656 per year PER DRIVE . . . that's the kind of savings you want in your plant!

That was the experience of the National Pulverizing Company, Millville, N. J. after installing a 150-hp Allis-Chalmers Texrope Drive! They found that the Texrope Drive required an average of 32 amperes at 440 volts less than the type of drive formerly used . . . a point verified by the utility company . . . an actual power saving of 23c an hour! Nor was this all—

For Allis-Chalmers Texrope Drive gave them a new improved dependability of performance so necessary when

running 24 hours a day . . . a lower maintenance with drive and machinery . . . a longer life to transmission units!

Allis-Chalmers Equipment Pays Profits!

Whatever your operating problems, let Allis-Chalmers engineering and Allis-Chalmers equipment offer you the answer—with high-efficiency performance . . . at dollar-saving cost!

Get the story of Allis-Chalmers 90 years of advancing with industry . . . how Allis-Chalmers equipment can cut your operating costs . . . improve your workers' comfort and safety . . . increase your year's profits!

Let performance facts show you why you should use Allis-Chalmers equip-



TEXROPE DRIVES are 98.9% efficient . . . an important factor in the amazing savings made by this 150 hp Texrope Drive at the National Pulverizing Co., Millville, N. J. A second similar drive was recently installed.

ment. Call the district office near you. There's a trained engineer whose job it is to help you solve your equipment problems. Or write direct to Allis-Chalmers for the whole story on the Equipment that Pays for Itself!

PRODUCTS ENGINEERED TO PAY FOR THEMSELVES

Electrical Equipment • Power Transmission Equipment • Steam and Hydraulic Turbines • Blowers and Compressors • Engines and Condensers • Centrifugal Pumps • Flour and Cereal Mill Equipment • Boiler Feedwater Treatment • Saw Mill and Timber Preserving Machinery • Crushing, Cement, and Mining Machinery • Power Farming Machinery • Industrial Tractors and Road Machinery



ALLIS-CHALMERS

MILWAUKEE • WISCONSIN



Hurtling 40 tons of metal through a tunnel—quietly

A typical example of Goodrich development in rubber

HURTLE a big railway car through a tunnel and you're bound to have the roar and clamor and screeching wheels you associate with the subway of today.

But subway officials and car builders weren't willing to quit trying for quiet. They knew of Goodrich rubber springs and other developments that reduce vibration and so reduce noise. They called a Goodrich engineers and set to work.

Every movement of a subway car, every stress and strain that might cause vibration and noise, was studied. Finally

a new-type compartment car was designed that literally swings in rubber—the body swings on giant rubber springs, yet there is no sway because rubber absorbs thrust in any direction. Rubber "sandwiches" in wheels keep rail shock from the car trucks and body. Wall panels swing in a rubber base to absorb vibration. In fact rubber eliminates virtually every metal-to-metal contact in body, trucks and mechanism.

The car was tried out, and purred along as silently as an automobile on a boulevard. "Subway nerves" will become a thing of the past.

This is the sort of work Goodrich engineers are doing all the time—finding new ways rubber and synthetics can serve industry as well as improving standard products such as belting, hose, packing, rolls. This constant development work explains why so many users of rubber find that Goodrich products last longer, cost less, serve their purpose better.

The B. F. Goodrich Company, Akron, Ohio.

Goodrich

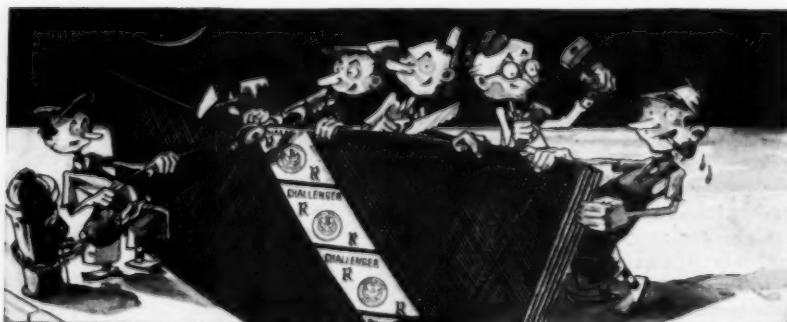
ALL products *problems* IN RUBBER

TRANSMITTING POWER AT Greatest Efficiency

REPUBLIC'S CHALLENGER BELTING

Complete operating efficiency of transmission drives depends upon low maintenance costs, preparedness for overload emergencies and steady flow of power without disturbing vibrations. Rugged, heavy-duty Challenger Transmission Belting has been a consistent aid to this type of performance in every industrial field. The merits of its operating ability—endurance, low stretch, even tension and minimum slippage—have been outstanding under the most severe conditions of shock and stress. Arrange with your Republic Distributor for a Challenger installation. Check for lower maintenance costs and superior serviceability on your own grounds . . . REPUBLIC RUBBER DIVISION OF LEE RUBBER & TIRE CORPORATION, YOUNGSTOWN, OHIO.

HOSE • BELTING • PACKING • MOLDED PRODUCTS



REPUBLIC RUBBER
Order
REPUBLIC
PRODUCTS
from your
DISTRIBUTOR

THIS BUSINESS WEEK



BUSINESS WEEK



Assoc.

War—specifically its economic implications—dominates this issue of BUSINESS WEEK. Beginning with the cover, which shows the President delivering his defense message to Congress, coverage includes the \$3,100,000,000 defense program, and what it means to business in terms of the orders which will be placed—page 15. . . . Where Italy stands in this war—and why—page 16. . . . A long-range analysis of developments on the political and economic fronts of Europe, prepared on the basis of the best-informed Washington opinion and weighed against the background of a three-month survey of Europe by BUSINESS WEEK's Foreign Editor—page 7. . . . The repercussions of the war on American business, this week and next—page 13. . . . Bargain day in the markets—page 52. . . . A full page of pictures of some of the week's outstanding news events—page 14.

Anything—

THIS DEPARTMENT has just one note to add. At a press conference in Washington this week a young Englishman, dropping his guard for a moment, under the fire of the questions of Washington reporters, suddenly blurted out the whole story of England's extremity. "If we don't get more planes in the next two or three weeks, I don't know what we'll do," he cried. "We'll take anything that can fly."

And it was only a little while ago that the English were insisting on our latest models. Now—"anything that can fly."

BUSINESS WEEK • MAY 25, 1940 • NUMBER 540

(with which is combined the Magazine of Business). Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw, Founder and Honorary Chairman, Publication office, 99-129 North Broadway, Albany, New York. Editorial and executive offices, 330 W. 42nd St., New York, N.Y. James H. McGraw Jr., President; Howard Ehrlich, Executive Vice-President; Mott Britton, Vice-Chairman; B. R. Putnam, Treasurer; D. C. McGraw, Secretary; J. E. Blackburn, Director of Circulation. \$5.00 per copy in U. S. A., possessions year in all other foreign Entered as second class at the Post Office at Albany, N.Y., under the Act of March 3, 1879. Printed by the McGraw-Hill Publishing Company, Inc.

and Canada, \$7.50 per copy; 25c per copy matter December 4, 1939, N.Y., under the Act in U.S.A. Copyright 1940 Publishing Company, Inc.

A MCGRAW-HILL

PUBLICATION

EK

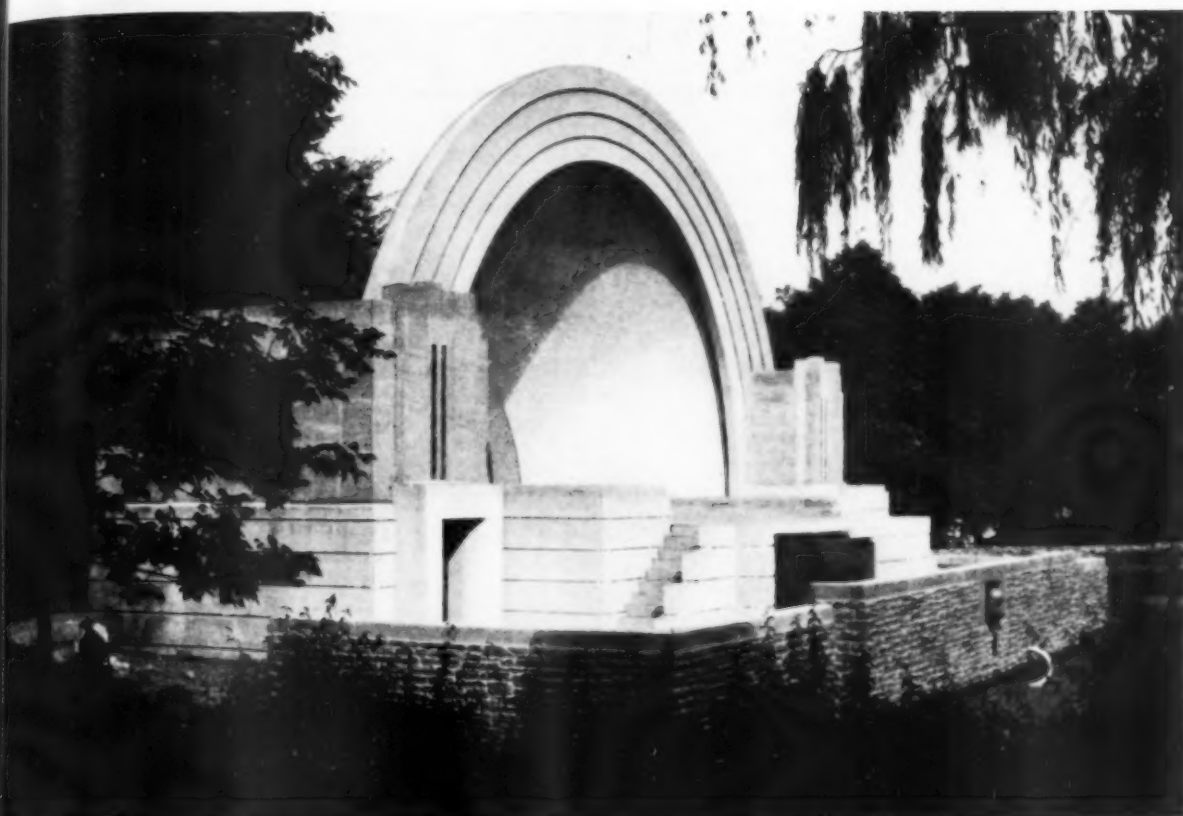
implica-
BUSINESS
r, which
his de-
rage in-
se pro-
siness in
e placed
ts in this
A long-
s on the
Europe,
best-in-
weighed
e-month
WEEK's
he reper-
business,
Bar.
52. . . . A
e of the
-page 14.

note to
ashington
dropping
the fire of
reporters.
story of
don't get
or three
do," he
can fly."
ago that
our latest
can fly."

NUMBER 542

ated. Published
nc., James H.
lication affor-
al and execu-
H. McGraw-
sident, Master
C. McGraw
\$5.00 per year
da, \$7.50 per
25c per copy
ember 4, 1939
under the Act
copyright 1940
om p. 101, 102.

ICATION



SYMPHONY in CONCRETE

SOARING curves from massive blocks harmonize this band shell with its setting in City Park, Reading, Pa. Imperishable concrete was the material used for its construction.

In keeping with superb planning and execution, three Lehigh products were used—each suiting a specific construction need.

Lehigh Normal Cement built the foundations, retaining walls, and superstructure except the floor.

Because immediate use of the floor was required for further uninterrupted construction, Lehigh Early Strength was used. It cures and hardens three to five times faster—speeds up any job.

Lehigh Mortar Cement gave a perfect bond in laying up the native stone facing, both above and below the water line.

Just as Wm. H. Dechant & Sons, in their architectural design and engineering for the band shell, and H. T. Horst Construction Company, in the construction, created a symphony in concrete, so should every component material in any structure be chosen in tune with its specific use. Whatever your building or modernization plan, be sure to ask your architect and contractor how Lehigh Normal Cement, Lehigh Early Strength Cement and Lehigh Mortar Cement may best serve.

LEHIGH PORTLAND CEMENT COMPANY

Allentown, Pa., Chicago, Ill., Spokane, Wash.

"But Rudy— this paper is INSOLUBLE!"



"Insoluble? Say, you've got something there... maybe it's just what we're looking for!" Rudy had a unique problem. His company required a paper that would not weaken after long contact with moisture. And it must resist grease too! In Patapar he found it. And he found that Patapar is also tasteless and odorless. Think it over. Perhaps Patapar is just the thing you've been looking for.

PATAPAR DOES JOBS LIKE THESE:



When moisture and grease are to be contended with as in sliced bacon (average 42.6% fat, 31.8% water), Patapar will solve the packaging problem.



Foods packaged in cans often need inner liners. Pretty wet inside the cans, so canners turn the job over to Patapar. It's insoluble and adds sales appeal.



Someone may be looking for a gasket-seal, such as those used for sealing the clean-out ports on milk cooling equipment. Patapar is just the thing.



What brand of carrots are they? You never knew in the old days. But now carrot growers wrap each bunch with a little Patapar band printed with the name and brand mark.

If you want to try Patapar, tell us the application you have in mind. We'll send samples in the size, weight, and finish recommended for your particular use.

Patapar Vegetable Parchment

Reg. U. S. Pat. Off. & For. Countries

Paterson Parchment Paper Company
Bristol, Pennsylvania

West Coast Plant: 340 Bryant St., San Francisco
Branch Offices: New York, Chicago

Headquarters for
Genuine Vegetable Parchment since 1885

NEW BUSINESS

Box Office

AN INQUIRY from Tahiti for tattooing machines didn't stop the Los Angeles Chamber of Commerce. It found a tool-maker in the town's Bowery who makes the scarificators for \$3.50 to \$5 apiece. . . . The manufacturer of a powdered lemon juice claims that three ounces of his product has the zing of six fresh lemons.

A California savings and loan association uses safe deposit boxes as premiums for new savings accounts. With each new account for \$300 or more goes the key to a safe deposit box for one year.

The Carrier Corp. has developed the "Human Furnace," an apparatus which determines how much heat a human being radiates. It is expected to be useful in gauging the load an air-conditioning installation would have to carry to cool an auditorium packed with people. For publicity, a red-headed girl, a blonde, and a brunette were tested in it. The red-headed girl was the hottest.

Because per capita meat consumption in the United States has not kept pace with rising population, the Institute of American Meat Packers will back a long-term advertising program stressing the healthful qualities of meat and its importance to a balanced diet. . . . Contribution of the Goodyear Tire & Rubber Co., a big consumer of southern cotton, to National Cotton Week (May 17 to 24) is a poster printed on cotton fabric. The poster points out the market Goodyear provides for cotton farmers.

U.S.A., 1940

IS IT LEGAL for a city to compete with private business? The Supreme Courts of Florida and Nebraska think so. Tallahassee will soon become a real estate agent because its right to finance an office

building has been upheld. Nebraska towns which operate their own gas plants have been permitted, by specific ruling, to establish retail stores to sell gas burners, stoves, and refrigerators.

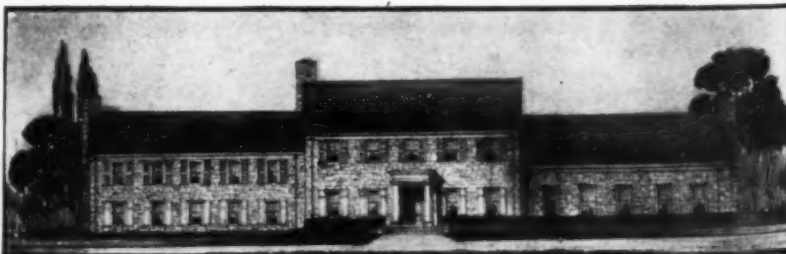
None of the coast-to-coast broadcasting systems has a definite policy for the pronunciation of French towns figuring in news broadcasts, but Mutual, after wrestling with the French versions of St. Quentin and Reims for several days, decided to anglicize them. One NBC announcer pronounced St. Quentin both ways in a five-minutes commentary. CBS has not made a ruling as yet for the pronunciation of Ypres. The choice is between the pure French version, which is probably out because it still sounds like a hiccup, just as it did in many of the last war's jokes, and between "Wipers," which is probably just out.

What's New?

PUPPETS with rubber faces, which can exhibit a surprising amount of expression, have created a fresh medium for commercial and ordinary films that seems to have as many possibilities for entertainment as animated cartoons. The puppets' faces and bodies are readjusted after each frame of film is exposed. This year as well as last, crowds have been attracted to the petroleum industry exhibit at the New York Fair by a technicolor movie in which animated oil drops are the actors. One designer of rubber-faced thespians says that Metro-Goldwyn-Mayer will release two of his shorts this summer.

Here's a new accessory for a light airplane: a wind-driven generator which supplies enough current to run a plane's radio and lights and to start the engine. . . . "Sav-a-tear" sponge rubber goggles with transparent celluloid lenses are sold to onion-peeling housewives.

Truckdrivers' Heaven



Just about the last word in service stations is this one being built by Standard Oil of Pennsylvania on the new \$20,000,000 Pennsylvania Turnpike between Pittsburgh and Harrisburg. Most luxurious of the ten stations to be built along the turnpike,

this two-story edifice will have a dining room seating 120, lounges, rest rooms, and a whole section devoted to truckmen—consisting of a dormitory with sleeping accommodations for 38, rest rooms, showers, smoking rooms, and lounges.

WASHINGTON BULLETIN

WASHINGTON (*Business Week Bureau*)—Republicans hope for a miracle, but they can't even figure out what to pray for in that line. Privately, they just hope "something will turn up" to change the situation before November—perhaps before the conventions. Allied victories might have done the trick, but a spectacular turn in the tide before election, which would calm American emotional partisanship for the Allies and reassure American fears of possible repercussions, is even beyond the miracle stage now, they fear.

Only Pro-Allies Can Win

IT BOILS DOWN TO THIS: The Republicans now believe (and most Democrats are coming to agree with them) that Roosevelt will take the nomination. They also believe and privately admit that—short

again of some miracle—they cannot make war an issue to use against him; an isolationist point of view or anything approaching it would simply invite defeat.

Hence, the "Keep Us Out of War" issue, so attractive a few months back in certain high Republican circles, is out. Roosevelt appeals tremendously to pro-Ally sympathizers. These are in an obviously overwhelming majority.

War an Inevitable Issue

WITH THE WAR blacking out almost everything else, it is difficult to figure how to keep war emotions from dominating the Presidential campaign—how to make folks think about anything else.

In that situation, Roosevelt is sitting pretty. He doesn't have to say anything, for he has proved his attitude, and any-

one trying to outdo him would overdo it, mess it up.

Dark as Republican prospects are, the G.O.P. isn't ready by any means to sign away its franchise by responding to the coalition cabinet lure which Roosevelt offered at his lunch with Landon this week. The Republicans still want to be free to criticize, especially in view of the fact that the President has said he wants to attain war efficiency without sacrificing any of the "social gains" of his Administration.

No Other Legislation

APART FROM NATIONAL DEFENSE, Congress will complete no important legislation of concern to business between now and adjournment. This is due not to preoccupation with the defense program—its framing is in the hands of a few

In the War Outlook—This Talk of a Truce

SINCE THE DAY in April that Allied forces decided to withdraw from all of Norway except Narvik, there has been a growing feeling in well-informed quarters that chances are strong that this war will end in a truce—short of complete Allied defeat, but at a point where Germany's advantages at a peace conference would be considerable.

That feeling, reported from influential European sources by BUSINESS WEEK's Foreign Editor on his return to this country as the *Blitzkrieg* started, and shared in important places at Washington, persists through this week's dramatic developments. It gains strength both from the evidence of German power and from the evidence of German weakness.

While Hitler can claim most of the victories in this war, his advantage is not always as great as it appears in the daily reports of the lightning attacks and in the miles of new territory occupied. The Nazis are waging the war with a definite superiority in the air and in heavy mobile units. They have surprised only the layman with their giant 80-ton tanks, for—despite popular belief to the contrary—the Allied High Command realized months ago that this would be one of the most powerful weapons against which it must fight.

But, despite these advantages which they have utilized so skillfully, the Germans are plagued by serious shortcomings. Nazi leaders are the first to admit that they are fighting this war on a shoestring. Without one knowing

exactly how much gasoline and oil they have left, it is perfectly safe to assume that the quantity is so little that they could not carry on a campaign of the last two weeks' intensity for more than a few months, unless they were successful in capturing important new stores of motor fuel.

Even if Germany could control all of Rumania's output of oil, in addition to the million tons being supplied by the Soviets this year, and the three million tons produced at home, its supply for the year—outside the stores it succeeds in saving from fire in newly-conquered territories—would be equal to a bare 20-day production in the United States.

Would Truce Be Accepted?

This is the kind of information that has lain behind the belief that, if they gained the expected initial fighting advantage, the Germans would offer a truce short of trying for a final, complete knockout.

How soon may depend on their remaining reserves of fuel as well as on their vindictiveness against an old enemy. What the attitude of the Allies will be in that case depends on the advice of the Army commanders. Caught with inadequate supplies of planes, tanks, and anti-aircraft guns, their strategy in this war has, of necessity, been to fight defensively in the hope that they could hold the Germans back until they could build up their resources for a major attack—in 1942, BUSINESS WEEK's Foreign Editor was told on a visit to the

Maginot Line (*BW—May 18 '40, p. 15*). Even with all the latent riches of their empires, they cannot alter that strategy in the face of this week's emergency, because their deficiencies are in machines it requires months or years to produce in quantity.

In Any Case, Orders

All this definitely affects the outlook in this country as Washington sees it. If the Allies are successful in organizing their counter-attack or if they refuse to consider any peace overtures from Berlin because they think they can keep going, even at a terrific cost, until Hitler has exhausted his supplies, particularly of gasoline, America can look forward to filling heavy Allied demands for supplies in addition to keeping up with its own great new defense program. If a truce is accepted, an immediate expansion of our defense program would take the place of the Allied demand, for the United States could no longer work on the assumption that its Atlantic frontiers were protected by friends.

Talk of a possible peace conference inevitably brings the response that the United States must take a responsible part in it. Reasons: We shall be faced with the problem of European colonies in this hemisphere; we may be confronted with threats to important sources of raw materials in the Far East, and to our own position in the Pacific; and—very important—we may be confronted after the peace with the full responsibility for playing banker to an exhausted Europe.

COMFORT OF GUESTS INCREASED AS HOTEL CUTS HEATING COST

**Webster Moderator System Saves
11,615,000 lbs. of Steam in
4 Years at Hotel Cleveland**

SLASH STEAM BILLS 11 P.C.

**Rooms Heated Evenly with Rate
of Steam Delivery Adjusted
by Outdoor Thermostat**

RECOVER ENTIRE INVESTMENT

Cleveland, O.—During four years of modern, controlled steam heating with a Webster Moderator System, the Hotel Cleveland cut heating costs 11 per cent and provided increased comfort for guests.

Prior to 1936 when the Hotel Cleveland installed a Webster Moderator System, steam consumption was excessive because large sections of the Hotel had to be overheated to bring other sections up to the proper temperature.

The total actual steam consumption for the 1936-40 period was 90,879,000 lbs., a saving based on past experience of 11,615,000 lbs. of steam in four years. Steam meter readings show that steam requirements were reduced from 4,063 lbs. to 3,950 lbs. per degree day.



Hotel Cleveland,
Cleveland, O.

In an authoritative article in NATIONAL ENGINEER, Kenneth A. Parks, Building Superintendent, wrote:

"The Hotel Cleveland has already saved in steam more than the total cost of the Webster Moderator System, its installation and maintenance. We have had more even operation, comfort for guests and fewer man hours chargeable to heating."

With the Webster Moderator System, all rooms heat evenly with just the right amount of heat to assure comfort. The rate of steam delivery is adjusted automatically according to need by a Webster Outdoor Thermostat. A manual Variator allows the operator to meet special conditions, such as rapid heating-up and reduced night heating load.

H. C. Banko, Heating Contractor, of Cleveland, made the installation. There is a total of 39,950 sq. ft. of installed direct radiation.

LOW HEATING COST

GET THIS BOOK... Read the fact stories about economy and comfort in the heating of 144 buildings. No exaggerated claims. No promises. Just 64 pages of heating results. Ask for "Performance Facts."

WARREN WEBSTER & CO., Camden, N. J.
Pioneers of the Vacuum System of Steam Heating
Representatives in 63 principal U. S. Cities—Est. 1898

key men—but to the excuse that it offers to brush practically everything else aside in the confusion of mind into which Congressmen, like everybody else, have been thrown by the terrific events in Europe.

These bills are dead: Wagner act amendments; the Walker-Logan bill to put the screws on NLRB, SEC, and other New Deal agencies; investment trust regulation; the Jones-Wheeler bill to put the farm credit system under Secretary Wallace's thumb; Ickes bill to extend his control of oil output; extension of 1937 sugar quota law; the La Follette bill to ban labor espionage, and other "oppressive" labor practices; extension of the USHA housing program; the omnibus transportation bill; Patman's chain-store tax bill; and the Neely bill to ban block-booking of films.

Plane-Makers' Rival

FEAR IS GROWING among airplane manufacturers that automobile makers will cut in on their war business on a vast scale. Two reports from usually reliable sources are current in Washington; (1) That automobile body-building concerns are pressuring an important plane manufacturer for sub-orders to build planes (not parts) with a thinly veiled threat that, if they can't build for somebody else, they will build for themselves; (2) that one automobile company has sold a high Army officer on the idea that, if it could get an order for 10,000 planes of a certain fixed type, it could turn them out at the rate of one every 14 minutes. The airplane people claim they could do the same thing if given a chance. They argue that they have the experience, that their ability to produce by mass methods is hampered only by the constant demand for new models.

Integrating Clothing

WASHINGTON IS EXPECTED to give its silent blessing to the Amalgamated Clothing Workers' Union's plan to "effect national stabilization of the men's clothing industry." To this end, the A.C.W. voted \$1,000,000 and appropriate authority to its executive board at its New York convention this week. Objective is to level wages and production standards throughout competitive marketing areas, and bring the whole industry into partnership with the A.C.W. in a super-integration scheme.

With the President's preparedness program calling for production of millions of army uniforms, there will be Administration cheers for any program which will make the industry more integrated, better-equipped to rush through defense orders.

Cracks in the Economy

IN THE EXCITEMENT over the defense program, several new cracks in the New Deal's economy have gone practically unnoticed. The tendency to use the RFC

for extra-Treasury financing is a case in point. Not only has Congress provided for using a maximum of \$50,000,000 in RFC money to finance farm purchases for tenants, but it has shifted \$40,000,000 for Rural Electrification Administration loans from the Treasury to the RFC and boosted the figure to \$100,000,000—a late request from the President.

Senate and House Committees have approved a proposal lifting the ceiling on RFC loans to railroads from \$350,000,000 to \$500,000,000. FHA losses on home modernization loans are running 30% heavier than a year ago, and a request for another \$2,000,000 of RFC funds to meet this situation has been received by Congress. In another direction, prospective wheat losses this year are so large that the President has asked Congress to appropriate another \$20,000,000 to the capital of Federal Crop Insurance Corp.

Bankhead as Keynoter?

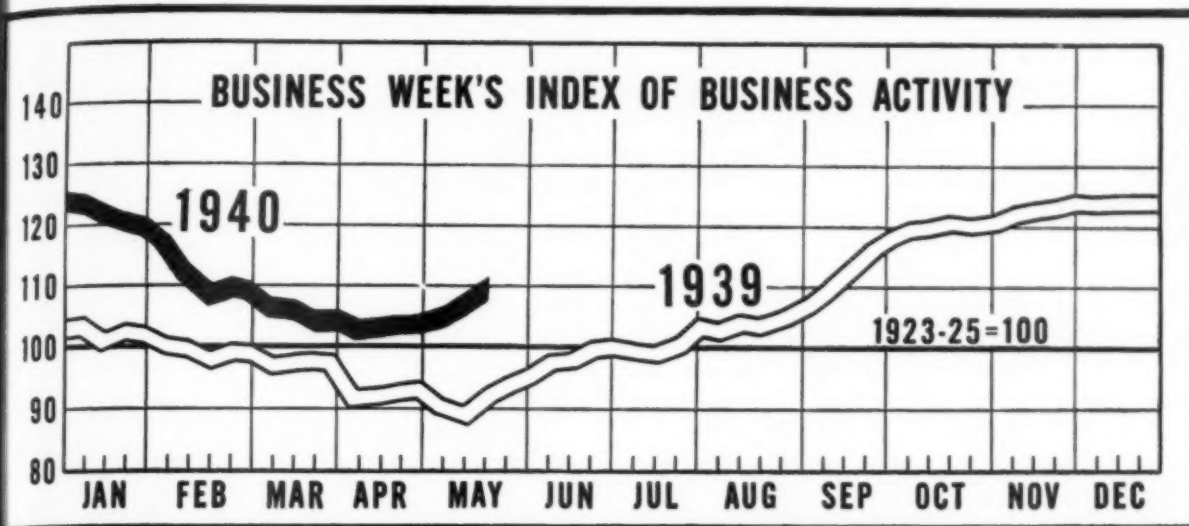
BEST TIP on identity of the keynote speaker for the Democratic convention is Rep. William B. Bankhead of Alabama, Speaker of the House and father of Actress Tallulah. For two years Bankhead has been the principal speaker, save the President himself, at the Jackson Day dinners in Washington. He is an orator of exceptional ability.

With Alabama's 22 delegates pledged to him in case Roosevelt doesn't accept renomination, the Speaker has made it plain that he's not a candidate if the President permits use of his name. Bankhead's boosters hope he will get second place on the ticket in event Roosevelt carries the banner.

P. S.

AN UNFEELING GOVERNMENTAL BUREAU is ruthlessly stamping out another cherished American heritage—the right to be gypped at the circus. Food and Drug Administration inspectors chased a circus from Philadelphia to South River, N. J., to seize gum drops, merely because the one- and one-half-pound capacity boxes held only 14 gum drops... CALIFORNIA CONGRESSMEN seem to have picked up Gracie Allen's challenge that other Presidential candidates declare themselves on the cantaloupe surplus; they are urging that melons be brought under AAA quotas... TO EASE the capital investments situation for comparatively small enterprises, Rep. Lea, chairman of the House Interstate Commerce Committee, has introduced a bill which would authorize the SEC to exempt issues up to \$1,000,000 from the detailed statement which the Securities Act requires. The present exemption lid is \$100,000. Lea hopes for enactment before adjournment... A SENATE Interstate Commerce subcommittee is getting ready to tackle regulation of the freight forwarding business. Hearings will open June 3. Only a beginning toward such legislation is expected this year.

THE FIGURES OF THE WEEK



	% Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX.....	*111.6	†109.1	105.2	124.1	93.3
PRODUCTION					
Steel Ingot Operations (% of capacity).....	73.0	70.0	60.0	93.9	48.5
Automobile Production.....	99,030	98,480	103,725	86,700	80,145
Engineering Construction Awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$8,488	\$8,817	\$8,826	\$11,260	\$10,541
Electric Power Output (million kilowatt-hours).....	2,422	2,388	2,422	2,514	2,170
Crude Oil (daily average, 1,000 bbls.).....	3,835	3,825	3,859	3,892	3,438
Bituminous Coal (daily average, 1,000 tons).....	1,325	1,339	1,278	1,784	179
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	71	70	69	79	68
All Other Carloadings (daily average, 1,000 cars).....	43	40	34	52	25
Check Payments (outside N. Y. City, millions).....	\$4,493	\$4,146	\$4,622	\$4,399	\$4,161
Money in Circulation (Wednesday series, millions).....	\$7,598	\$7,589	\$7,536	\$7,384	\$6,913
Department Store Sales (change from same week of preceding year).....	+7%	+4%	+5%	+7%	+22%
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931=100).....	156.2	163.8	163.2	160.5	144.1
Iron and Steel Composite (Steel, ton).....	\$37.40	\$37.25	\$36.56	\$37.44	\$35.63
Scrap Steel Composite (Iron Age, ton).....	\$17.92	\$17.58	\$16.13	\$19.58	\$14.08
Copper (electrolytic, Connecticut Valley, lb.).....	11.365¢	11.383¢	11.296¢	12.500¢	10.000¢
Wheat (No. 2, hard winter, Kansas City, bu.).....	\$0.89	\$1.05	\$1.08	\$0.86	\$0.76
Sugar (raw, delivered New York, lb.).....	2.77¢	2.88¢	2.89¢	3.03¢	2.90¢
Cotton (middling 1/8", ten designated markets, lb.).....	9.45¢	9.90¢	10.50¢	9.39¢	9.35¢
Wool Tops (New York, lb.).....	\$0.984	\$1.016	\$1.013	\$1.154	\$0.864
Rubber (ribbed smoked sheets, New York, lb.).....	22.08¢	23.22¢	19.61¢	20.16¢	16.07¢
FINANCE					
Corporate Bond Yield (Standard Statistics, 45 issues).....	5.82%	5.56%	5.58%	5.67%	5.76%
U. S. Bond Yield (average of all issues due or callable after twelve years).....	2.43%	2.28%	2.27%	2.47%	2.14%
U. S. Treasury 3-to-5 year Note Yield.....	0.70%	0.48%	0.48%	0.63%	0.40%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	1/2-3/4%	1/2-3/4%	1/2-3/4%	3/4%	1/2-3/4%
Business Failures (Dun & Bradstreet, number).....	266	249	262	308	289
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks.....	19,928	19,741	19,655	18,604	16,681
Total Loans and Investments, reporting member banks.....	23,592	23,576	23,589	23,014	21,609
Commercial and Agricultural Loans, reporting member banks.....	4,414	4,404	4,430	4,362	3,845
Securities Loans, reporting member banks.....	1,075	1,091	1,093	1,085	1,178
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks.....	11,469	11,466	11,408	11,127	10,335
Other Securities Held, reporting member banks.....	3,480	3,456	3,528	3,336	3,228
Excess Reserves, all member banks (Wednesday series).....	6,300	6,130	6,050	5,166	4,244
Total Federal Reserve Credit Outstanding (Wednesday series).....	2,518	2,507	2,514	2,715	2,576
STOCK MARKET (Average for the week)					
50 Industrials, Price Index (Standard Statistics).....	94.0	109.1	117.6	123.8	107.5
20 Railroads, Price Index (Standard Statistics).....	23.8	28.2	30.8	33.8	26.4
20 Utilities, Price Index (Standard Statistics).....	55.8	63.2	67.7	70.1	65.3
90 Stocks, Price Index (Standard Statistics).....	77.2	89.3	96.2	101.3	88.3
Volume of Trading, N. Y. Stock Exchange (daily average, 1,000 shares).....	2,619	†2,475	1,033	680	521

* Preliminary, week ended May 18th. † Revised. ‡ Date for "Latest Week" on each series on request.

THE CASE OF THE MIXED-UP MEDICINE

(it actually happened)



1 Look, Mother! Here's the baby's medicine. Fred and Grace were supposed to take with them. I'll bet they took the wrong bottle by mistake. . . I'm going to call the police!



2 . . . they're in a green coupe headed for Boston. The license number is X3857. You must do something to stop them.



3 Send this message by teletype at once to all stations between here and Boston. Make it fast. A baby's life is in danger.



4 8-state alarm—stop dark green coupe, license X3857. Man named F— B— with wife and baby. They took wrong medicine bottle for baby. The one they have contains 1 per cent atrophine sulphate. Stop car and warn them. If supposed medicine has already been administered, use any emetic.



5 ONE HOUR LATER. That's the car we're after, Harry. Let's go!



6 We've just received the following message by teletype — Baby out of danger.

THE same factors that recommend Bell System Teletypewriter Service to the police make it valuable to modern business also. It flashes messages with speed and the accuracy of the written word. Saves time, error, and money. A Bell System representative will gladly tell you how. You can reach him readily through your local telephone office.



BUSINESS WEEK

May 25, 1940

THE BUSINESS OUTLOOK

Shock of Allied reverses and break in stock and commodity prices slow up business; but war-buying and rearming provide prop for heavy industries. German victory would mean intense post-war competition.

AGAIN THIS WEEK steel scrap was an isolated commodity—a symbol of underlying strength in the heavy industries; again in the face of Allied reverses and declines in a broad range of agricultural and industrial prices, it advanced. For this there is a double reason: Allied orders for steel are coming in at an accelerating rate and now that the United States is preparing to rearm, domestic requirements will mount.

But steel is by no means alone. War and rearmament will stimulate demands for copper, lead, airplanes, shells, and a host of other products. Domestic orders will go out to railroad equipment companies, to automobile manufacturers, to printing press producers, for munitions, etc. So there's business—all kinds of war business (page 60)—in the offing.

"Liquidity Preference"

Yet copper and lead prices have been weak and common stocks of companies which would be direct and indirect beneficiaries of war orders have been dumped overboard in a panicky effort on the part of investors and speculators to become liquid. This is characteristic; because of the inevitable uncertainties, the "liquidity preference" becomes a fetish in wartime; and rising fears of a German victory heighten and exaggerate this preference.

For the most part this liquidity preference is almost instinctive. And yet there is a deadly long-term accuracy in it. A German victory would not only mean the immediate end of Allied buying in this market but it would introduce an era of intense competition in world markets. American industry, operating under the system of private profit and private initiative, would be pitted against the one-man-directed industrial machine of Hitler's enlarged totalitarian state.

A New Competitor

The Hitler war machine gradually would be converted over to the manufacture of automobiles, business equipment, agricultural implements, etc., for sale all over the world—even in the United States. Raw materials would be at Hitler's back door; assets acquired from the conquered Allies would be available for the purchase of vast quantities of neces-

sary supplies. And American industry would have a new competitor—a government-controlled and government-coordinated competitor—who could change hours and wages with the single aim of gaining markets at all cost and little profit.

War Machine to Peace Machine

That is the economic foundation for the current anxiety to get rid of common stocks. But it takes time to dismantle a war machine and change it over to a peace machine. Even after victory, it would be 12 to 24 months before German automobiles and tractors and railroad cars could offer price-breaking competition in international markets.

Thus, it is clear that if investors and speculators are reasoning this thing out (which they probably aren't) they are reasoning it out on a strictly long-term basis; they are considering the shifts a highly-industrialized totalitarian state would force upon American industry and American planning. Looking far ahead, it is conceivable that tariffs would be raised or quotas set to keep German products out of this market; free trade would become an economic atavism.

As yet, however, there is little statistical evidence of actual business deterioration. This week, BUSINESS WEEK's Index advanced two and one-half points to 111.6; in three weeks, business has advanced more than six points above the 105-level where the January-March decline was arrested. To date the improvement has been due primarily to the advance in the steel rate from 60% of

capacity to 73% at a time when operations seasonally should decline. So it can hardly be said that the recovery has been rounded.

In its current development, the business pattern is strictly unorthodox. In a recovery from a depression, it is customary for the consumer goods industries—textiles, woollens, shoes—to stabilize first and then turn up (*BW—May 11 '40, p13*). But this time the heavy industries are in the lead—primarily because the manufacturers of airplanes, ships, steel are doing and counting on an expanding war and national-defense business. Amid heavy liquidation, this pattern can hardly be construed as unqualifiedly strong.

Business Cannot Plan Ahead

Inevitably, falling markets are bad for business. In response to the drop in raw cotton and wool prices, textile buying has stopped dead. All along the line, manufacturers, converters, and jobbers are letting their stocks run off. They are not re-ordering—and understandably. Business men cannot operate ahead—cannot lay plans for inventories—when every time they accumulate cloth or yarn they run the risk of an inventory licking. So they just wait and see, and textile production may drop off further.

Auto Sales Hit

The deflation of stock values has begun to be reflected in retail trade. Automobile dealers in New York report that sales dropped sharply when stocks crashed; which is to be expected. Auto purchases still depend heavily on so-called supernumerary income; and when the market drops 25% in 12 days—about as much as in three full months in the 1937 crash—prospective new-car buyers are bound to think twice about the deflation in their supernumerary assets. Refrigerator sales also are down, and clothing salesmen now on the road report that department store buyers are cautious in placing orders for the fall.

However, bearishness can easily be overdone. Unless the war ends suddenly, Allied demand is bound to increase; and President Roosevelt's preparedness program is an additional prop for the heavy industries. When the heavy industries are producing, it's hard to have a serious depression. Further, things could turn around quickly with a real show of Allied resistance; in that event, starting from a deflated base, recovery both in business and in prices could develop very fast.

Regional Outlook

THE REGIONAL BUSINESS OUTLOOK, which usually follows The Business Outlook, has this week been shifted from its regular position on the following page to page 48. There, incidentally, its information for alert sales executives on where business is better—or worse—and on what current regional changes mean to markets makes a logical contribution to BUSINESS WEEK's regular Marketing Department.



Wide World

In Washington, representatives of the aviation industry met with Army and Navy officials and Secretary of the Treasury Henry Morgenthau, Jr., and weighed the problem of how to speed up U. S. airplane production to the President's 50,000-a-year goal.



In Kansas City, Mo., last week the war knocked 25% off prices in the wheat pit. Though all the exchanges, at the urging of the Department of Agriculture, promptly put a fixed bottom on prices, grain pits continued to seethe with excited uncertainty.

The War Week in Business



Harris & Ewing

Before a Senate committee, Gen. George C. Marshall, the Army's chief of staff, defended the government's previous defense expenditures, asked, and got, \$45,000,000 more than Roosevelt requested to bring the Army up to its authorized strength of 280,000 men.

In Indianapolis, the Allison Airplane Division of General Motors Corp.—which makes engines for pursuit ships and dive bombers—was rushing construction of a new plant (under police surveillance), to meet increased demands both at home and abroad.

Acme



At the President's request, 35 of the old destroyers which lay in the Philadelphia Navy Yard since the end of the War in 1918, were scheduled to be reconditioned for emergency patrol duty. The estimated cost of the job—about \$6,000,000.

Out of New York harbor, a load of mechanical trench shovels sailed for "somewhere in England or France," toward a war in which the bombshell pace of offensive strategy had allowed little time or room for the defense to dig-in—in World War I.



Busi
De
hor
scor
WASH
By his
Preside
more a
partisa
than b
accomp
The
is 83.10
thoriza
appropri
through
tack st
request
sage M
The
industri

11
10
9
8
7
6
5
4
3
2
1
0
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046
2047
2048
2049
2050
2051
2052
2053
2054
2055
2056
2057
2058
2059
2060
2061
2062
2063
2064
2065
2066
2067
2068
2069
2070
2071
2072
2073
2074
2075
2076
2077
2078
2079
2080
2081
2082
2083
2084
2085
2086
2087
2088
2089
2090
2091
2092
2093
2094
2095
2096
2097
2098
2099
2100

U. S. Treasury

Defense—the Order of the Day

Despite some business skepticism about Trojan-horse tactics in preparedness setup, Roosevelt program scores high with Congress and the country.

WASHINGTON (Business Week Bureau)—By his "house afire" defense program, the President achieved a political *Blitzkrieg*, more significant because of rallying bipartisan support for defense objectives than because of what it might actually accomplish now.

The program's one solid feature to date is \$3,100,000,000 in cash and contract authorizations. The total includes regular appropriations already on their way through Congress when the German attack struck, plus the additional money requested by the President in his message May 16.

The program doesn't take the form of industrial mobilization for an actual war

effort—after all, building a full-scale battle machine isn't accomplished by the passage of one bill. Congress realizes that, feels that it ought to do more than merely appropriate the money; but, with few specific proposals to act on, Congress is confused, and in a hurry to get home.

Opposes Weakening of Reforms

President Roosevelt is wary of attempts to "sabotage" the New Deal's social reforms. However, legislative action wouldn't be necessary to modify the 8-hour day, 40-hour week stipulated by the Walsh-Healey Act on government contracts over \$10,000. The law as it stands permits Secretary Perkins to increase hours in an industry or in a particular plant and allow exemption from the requirement to pay time-and-a-half for overtime. She cannot, however, extend that exemption beyond 42 hours, because the general Wage-Hour Law requires payment of time-and-a-half beyond that limit. As for relaxation of the antitrust laws, Thurman Arnold's squad is determined to see that there is real competitive bidding and no ganging up on prices. No direct price controls will be instituted by the government, short of an actual war situation. As the first impact of the message wore off, business was inclined to be skeptical lest the defense program prove to be a Trojan horse constructed to further Democratic political ambition. This wariness seems to be inspired mostly by the fact that Roosevelt is not making any show of calling on big men in business to take a hand. This week's an-

nouncement that "coordinators" would be appointed to handle liaison work falls far short of what might be expected.

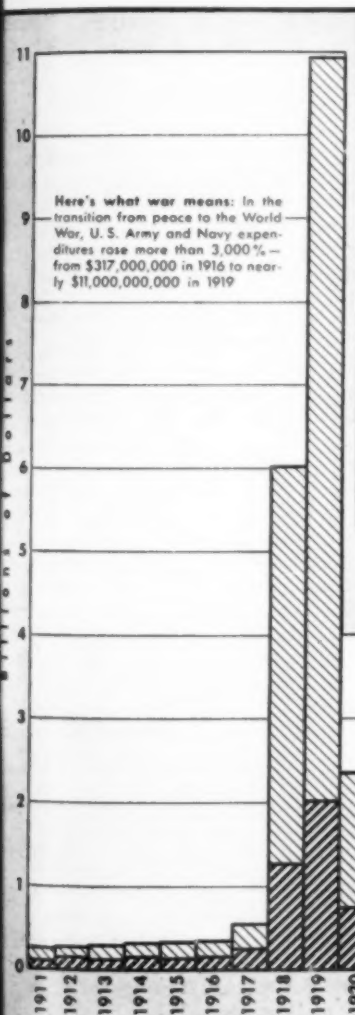
The feeling that industry should have a look-in in high places is reflected in Senator Vandenberg's proposal that a civilian munitions administration be created to gear industry for turning out defense supplies quickly. Vandenberg rubbed a sore spot when he called on the President "as a matter of fair play and good faith" to turn over to Congress last fall's report by the Stettinius board (BW—Oct 28 '39, p. 55), which left-wing New Dealers are credited with suppressing for fear that the endorsement given to the industrial mobilization plan projected by the Army and Navy Munitions Board would take the play out of their hands.

Aircraft manufacturers called to Washington Monday for a confab with officials of the Treasury, War, and Navy departments went home disgusted after a vain effort to get some specific information on what the government expects of them. All they heard from Morgenthau was that the government would cooperate with them (barring tax concessions) if they would cooperate with the government, and that the first move was up to them.

"Mortgages" Unwelcome

RFC is ready, according to Jesse Jones, to take 75% of any secured loans made by banks for production or plant expansion in connection with the defense program. So far, this offer hasn't begotten any wild enthusiasm simply because manufacturers don't want mortgages hanging over their orders.

From the Army's viewpoint, government ownership and business operation of plants is the desirable approach in those instances where aircraft and ordnance capacity isn't large enough to meet the load. This method would cut through knotty, contentious questions of taxation, amortization, and the like, but officials recognize that business also has to consider another angle. If the government

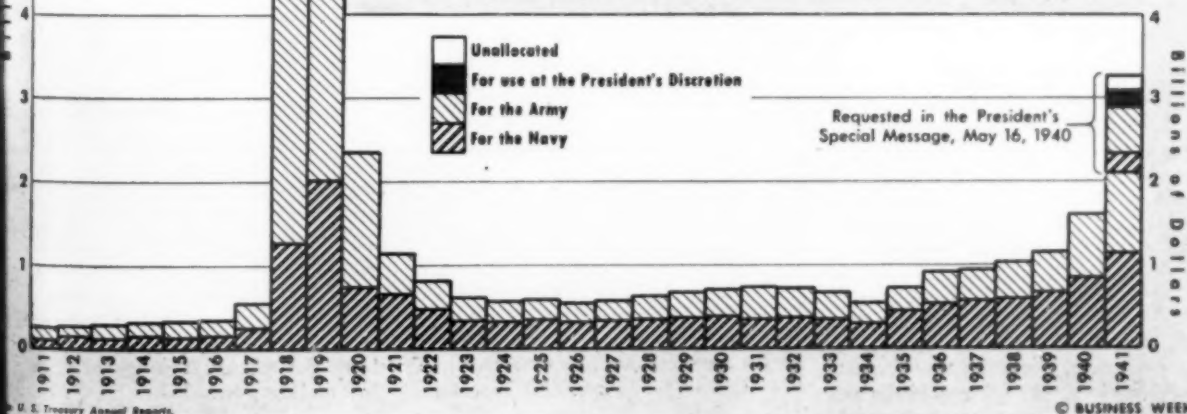


THE PRICE OF NATIONAL DEFENSE

U. S. Expenditures for the Army and the Navy, Fiscal Years, 1911-1941

Unallocated
For use at the President's Discretion
For the Army
For the Navy

Requested in the President's Special Message, May 16, 1940



U. S. Treasury Annual Reports.

© BUSINESS WEEK

owns the plant it holds a club over the tenant: Do it our way—or else we'll do it ourselves.

As revamped by the Senate this week, the Army bill will enable the President to use a blank check of \$66,000,000 and an equal amount of contract authorizations to build, equip, and lease plants and to foot the cost of training labor to man them. Out of this fund the President also is authorized to spend as much as he chooses for obtaining supplies of manganese, tin, rubber, chrome, and other strategic materials needed in munitions production. This authorization is in addition to the \$12,500,000 appropriation which Congress has already made, and, to bolster the stockpile program further, the President has asked for a specific additional grant of \$35,000,000. (Later this week he added a request for \$1,000,000 for a three-year Department of Agriculture study of the possibilities of commercial rubber production in the western hemisphere.)

Differ on Plant Location

Proposed location of the new munitions plants "between the Rockies and the Appalachians," as suggested by the President, is intended not so much to get them out of bombing range as to scatter the targets. Roosevelt's own appraisal of this country's vulnerability to air attack indicates that the Middle West is exposed to practically as much hazard as the Eastern seaboard. Eastern aircraft, engine, and machine manufacturers don't like planting new capacity inland, claim that they can make speed only by setting it up alongside of their home plants.

When the President talked about an air force of 50,000 planes for the Army (costing \$3,750,000,000 to build and \$3,500,000,000 to maintain) it was his own idea. On May 2, General H. H. Arnold, chief of the Air Corps, told the Senate Appropriations Committee that, barring an "emergency," a yearly capacity of 9,600 would be sufficient.

The Army bill provides for 309 combat planes, 2,237 training planes, and 20 miscellaneous types. These are in addition to the 3,300 combat planes, 2,073 training planes, and 127 miscellaneous craft, specified in the aviation expansion program, already under way.

Priority Isn't Asked Yet

The bill carries a grand total of \$1,498,000,000 in cash and \$323,000,000 in contractual authority, an increase of some \$700,000,000 over the bill passed by the House before Hitler made it an "all-out" war. Besides aircraft, the program covers substantial increases in anti-aircraft guns, small arms, field artillery, tanks, tractors and trucks, railway artillery, ammunition, gas masks, uniform cloth, and signal corps equipment.

At present, at least, the War Department doesn't expect to demand priorities over commercial orders, and contracts

will be let as usual on competitive bidding. The Army expects to do business mostly with firms which have been its regular suppliers. Because of the load, more orders are likely to be farmed out.

A feature of the Army industrial preparedness plan—educational orders for developing quantity production methods of turning out technical munitions—is given a boost by an appropriation of \$16,250,000.

As the Allies' fate turned blacker this week, President Roosevelt sprang a plan to boost naval air strength to 10,000 planes, to be financed initially out of the Navy appropriation bill, which has already been increased from \$963,000,000 to about \$1,280,000,000. This increase will make it possible to speed up naval shipbuilding, acquire needed equipment.

Keen to cut red tape and help contractors get along with their job, the Navy, with the President's backing, is launching legislation (1) to permit ad-

vances to ship and aircraft builders of 30% of the price of contracts, (2) to negotiate contracts instead of calling for competitive bids, (3) to lift limits on cost of vessels, (4) to raise from \$10,000 to \$25,000 the exemption of contracts from the 10% profits-limitation imposed by the Vinson-Trammell act, (5) to permit contractors to spread prior losses over a four-year instead of a two-year period, (6) to give precedence over all other contracts, foreign or domestic, to orders for machine tools placed by the President or the Secretary of Navy, and (7) to authorize the Secretary of the Navy, rather than the Treasury, to determine amounts which contractors can charge into contracts for plant expansion.

As the week progressed, the endorsement given to the President's enlarged defense program gave way slightly to a more critical attitude, but Roosevelt had scored high not only in Congress but in the country.

For Italy, a Gambler's Choice

"8,000,000 soldiers," says the Duce. "Not enough leather to shoe half of them," say Italian business men. And that's the Fascist war problem.

CAN ITALY stand the economic strain of participating in this war?

If you mean real war and not simply participation in the final moment of a German victory, the answer is that Italian industrial leaders doubt it. So does the general public.

But neither of these has any important influence today on the decisions made in Rome. Decisions come from just one man. Mussolini alone weighs the German example of what boldness can accomplish on a shoestring.

For *il Duce*, as for *der Führer*, war must be a race against time and the exhaustion of unbelievably meager stocks of war materials; a gamble that before the last precious gallon of gasoline is used, and the last round of shells fired, the enemy will have been cowed into a truce. And the Axis leaders must hope to hold in their hands by then the main territories that they covet, and enough more strategic advantages to give them plenty of leeway for bargaining.

Mussolini alone could not possibly risk a showdown in the Mediterranean with either France or Britain. He has always known that he must, at least, wait until their major forces were pinned in a life-and-death struggle with the Germans.

"Preliminary" Goals Proclaimed

His secret ambitions, like Hitler's, may be limitless, but he has made blunt territorial claims in the last few years which indicate his first objectives.

He wants an important share—if not more—in the control of the Suez Canal where Anglo-French money and British arms are interposed between Italy and its main African Empire.

From France, he wants Tunisia on the northern coast of Africa, the island of Corsica, and the tiny French outpost of Djibouti at the Red Sea end of the railroad into Ethiopia. Though deputies in the Italian Chamber more than a year ago also asked for the two French provinces of Nice and Savoy which adjoin

The Real War—As Mussolini Sees It

WHAT leading Italian industrialists told BUSINESS WEEK's Foreign Editor in Rome and Milan, and what the cold figures show regarding Italy's war position, make important news this week for American business executives.

One way to express its importance

would be to say that the key to Mussolini's decision lies in this second of a series of reports by the Editors of BUSINESS WEEK on the real war—the economic war that inescapably dictates the military strategy of dictators and democrats alike.

*We're getting figures faster,
with fewer errors, with the*

MODEL K ELECTRIC COMPTOMETER

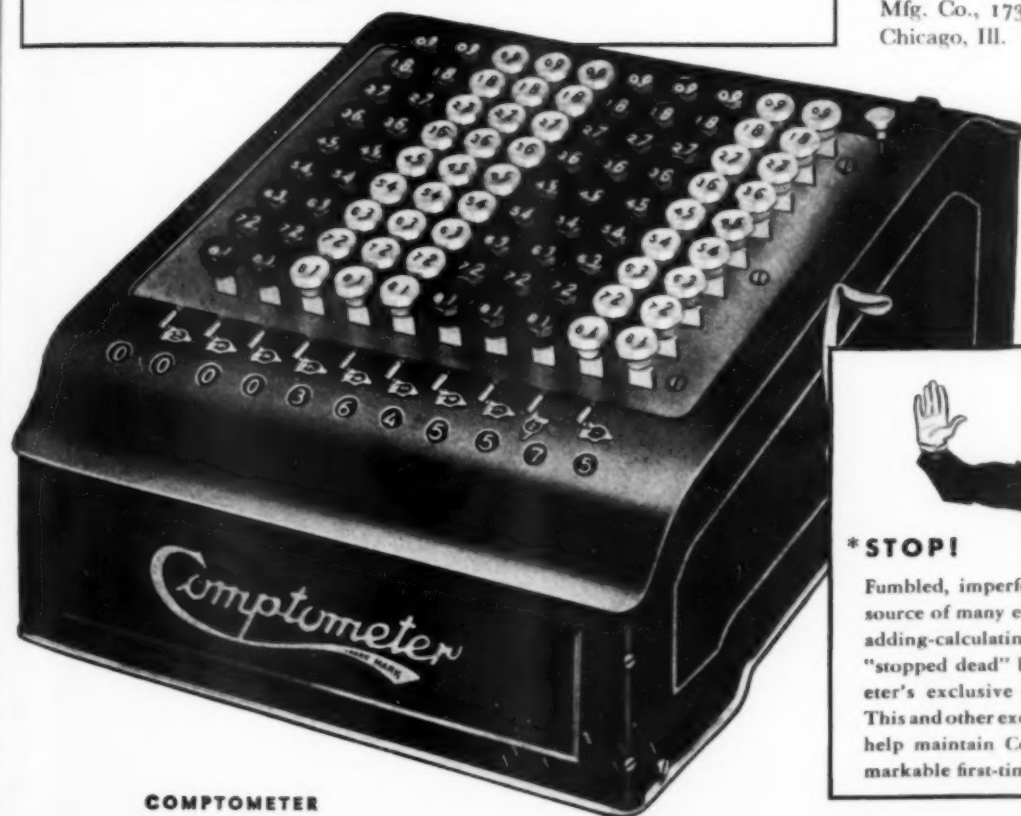


It's impossible to "laugh off" the fact that increasing numbers of progressive concerns—large and small—are finding the solution to their figure-work problems in the Comptometer, and modern Comptometer methods.

To understand the full meaning of "Comptometer Economy," you have only to realize that the Comptometer combines *remarkable speed* with *Controlled-Key accuracy** . . . and that Comptometer *methods* simplify figure-work routine.

Both the Model K Electric Comptometer (illustrated below) and the new Cushioned-Touch Model M are popular with operators for their light, balanced key-stroke—a factor that helps reduce fatigue to a minimum and keep operator-efficiency at a high level.

May we demonstrate "Comptometer Economy" in your office, on your own work? Telephone your local Comptometer office—or write direct to Felt & Tarrant Mfg. Co., 1733 N. Paulina St., Chicago, Ill.



COMPTOMETER

REG. U. S. PAT. OFF.



* STOP!

Fumbled, imperfect key-strokes—source of many errors in ordinary adding-calculating machines—are "stopped dead" by the Comptometer's exclusive Controlled-Key. This and other exclusive safeguards help maintain Comptometer's remarkable first-time accuracy.



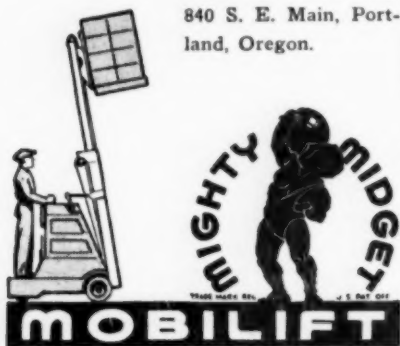
YOU NEED *him* TOO

If you hire but two men to handle goods you need this powerful helper who can carry up to a ton, move it any place in your plant quickly and lift it up to a 14 ft. ceiling.

MOBILIFTS move goods in and out of elevators, trucks, and freight cars for businesses large and small at an operating cost of less than 25c an hour.

Write for full details about **MOBILIFT**. Prices begin around \$1000 at factory.

Vaughan Motor Co.,
840 S. E. Main, Port-
land, Oregon.



This marble map, showing the Roman Empire in the time of Trajan, is one of four which have been put up along the road leading to the Coliseum in Rome, to picture the size of the Roman Empire at various

periods in history—and to match it against the comparatively insignificant Italian Empire of today. It's one way Mussolini is trying to whip up interest in the recovery of some of the old empire.

the Italian frontier, no one believes that these will be claimed in anything short of an absolutely hopeless Allied defeat.

For an Outlet—and a Menace

Demands against Britain are less concise, but constant Fascist claims that "Italy must be assured of a free outlet from the Mediterranean" focused attention, long before this week, on British-held Gibraltar and on tiny Portugal, old and close friend of London, owner of strategically-placed islands in the South Atlantic. In one lightning stroke, Mussolini would like to threaten France on its last land frontier, and Britain on its routes to the East, not only through the Mediterranean but also around Africa.

To the East, Italy still demands a share, with the Nazis, in the resources of Yugoslavia. If it can grab and hold Greece its strategy would be to pin the Allied fleet and the Allied army in Syria to the eastern end of the Mediterranean far from Italy's long and vulnerable coastline.

Italian strength rests only in its air force and in the nuisance value of its navy. For the first the Allies have full respect; with the navy they declare they are able to cope.

Under ordinary circumstances, no nation in Italy's present economic condition would risk going into a war. Mussolini has boasted that he can throw 8,000,000 men into the conflict but serious-minded compatriots italicize his position when they insist that he has not enough leather to provide half that number with boots.

Italians grow enough food at home to feed themselves but, as Italy's leading

business man, Count Volpi, told **BUSINESS WEEK**'s Foreign Editor in an interview in Rome in March: "The good Lord blessed us with enough food to keep ourselves alive, but he failed to provide us with the fuel to cook it." As a result of the British blockade of German coal since last March, Hitler and Mussolini scrambled together enough cars to haul a million tons of coal across the Alps to Italy in April. But can they keep this up under the terrific war strains of May?

Italy has adequate resources within its borders of not one important industrial or war material except mercury. Like the Germans, Italy has been offering automobiles for sale in Bucharest and Ankara without tires because the rubber is desperately needed at home.

Handicapped in Meeting Demand

Since the beginning of the war, Italian textile mills have received tremendous orders from foreign countries which were formerly supplied by Britain or France, but Italy's raw cotton purchases have been restricted by the British contraband control, which claimed certain important shipments were really destined for Germany, and by Italy's limited supplies of foreign exchange.

By a terrific effort, the Italians have boosted annual oil production in Albania in the year that they have held this territory to 300,000 tons. Yet this is less than 15% of the country's requirements even in peacetime. When it is realized that one heavy tank consumes 100 gallons of gasoline an hour, it is evident how vulnerable Italy's military power is to the British blockade. It explains why Italian motorists have had their

European
watch it
signifi-
cantly. It's
to whip
of some

d Bust-
an inter-
he good
to keep
provide
a result
man coal
Tussolini
to haul
Alps to
keep this
of May?
within its
industrial
Like the
g auto-
Ankara
is des-

mand
Italian
mendous
ch were
France,
es have
straband
portant
or Ger-
plies of

ts have
Albania
ld this
s is less
rements
realized
00 gal-
evident
power
explains
d their

ALADDIN OF A MILLION LAMPS

STREET LAMPS... READING LAMPS... SUN LAMPS... coming to life at the flick of a switch. Aladdin's magic brought up to date. The magic of electricity.

Without oil, the lamps would go out and stay out. For whirling dynamos... like industrial machinery of all kinds... live on lubrication, die without it.

To power house... to factory... to all industry, Texaco offers a complete line of dependable quality lubricants plus fast, efficient service from more than 2300 supply points.

THE TEXAS COMPANY

—in all
48 States



Your loan is more secure in a home of **CONCRETE**

Concrete homes are firesafe, dry, comfortable, highly resistant to storms, termites and decay. Concrete's first cost is little or no more than for non-firesafe construction, and its annual cost is much lower.

STRUCTURAL SECURITY FOR THE MORTGAGE

Concrete's enduring strength outlasts long-term financing. And, because structural repair bills, protective painting and redecorating costs are low, the family budget is protected; borrower is more certain to meet his monthly payments when the home is of concrete.

Profits from realty investments in the future are likely to come through *maintenance* of values rather than large increments of

values. Hence wise mortgage investors and home buyers today are looking for greater *durability* and *long-run economy* in home construction. And they're getting such homes with concrete! Over 45,000 concrete houses built in the last 4 years make this the fastest-growing type of home construction.

FOR FURTHER FACTS ON CONCRETE HOMES—

Ask a Concrete Products Manufacturer or Concrete (cement) Contractor—see phone directory—for names of architects and builders experienced in concrete.

We will gladly present further facts on concrete as a preferred investment to large mortgage lenders or home developers.

PORTLAND CEMENT ASSOCIATION, Dept. 5d-12, 33 W. Grand Ave., Chicago, Ill.

A national organization to improve and extend the uses of concrete... through scientific research and engineering field work

gasoline rations cut down to less than one quart a day. Italy must either succeed in one lightning maneuver in breaking this blockade at Gibraltar or Suez, or it must capture its own new oil supply—the nearest being in Rumania or Iraq.

Italian business has profited very little from the war. The loss of tourist traffic alone cuts \$120,000,000 off the nation's foreign exchange income. Without raw materials of his own, Mussolini has had to depend on imports from abroad and since nearly 70% of them come through Gibraltar or Suez, all have been subject to a rigid British contraband control which let through only enough to meet Italy's own normal needs and to fulfill her contracts for Britain and France.

France Supplies Some Business

During the first six months of the war, the French alone bought \$150,000,000 of Italian goods—including 150 airplane engines, and large quantities of uniforms and blankets—for which they paid both in the raw materials Italy needed so desperately and in cash. To relieve their own plants and to save some business Mussolini's way, the French even had American steel companies ship shell forgings to Italy for finishing in Italian plants. Britain was attempting to negotiate in March a new trade deal which would not only keep Italian industry mainly occupied on Allied orders but provide Britain with much-needed ships, motors, and machines. However, the deal fell through because of pressure from Germany, which fully grasped the strategy of London.

Italy has no important financial reserves on which it can call. Its national debt is already believed to be in the neighborhood of \$11,500,000,000. Though the lira is still officially worth 56, industrialists in Milan as long ago as March were offering 40 to 50 lire for an American dollar and there was no protest from the government.

At Doors of Britain's Friend

A few weeks ago, four little Italian destroyers steamed into port of Lisbon and tied up alongside the waterfront. A collision between two of them put the squadron in American news columns. Ostensibly they had been bought by Sweden and were being delivered to Stockholm, though, when BUSINESS WEEK's Foreign Editor was in Lisbon, no one seemed to know just how they were going to be delivered through the mine-infested waters of the Kattegat. They are still at anchor in the Tagus. There are no Allied vessels at Lisbon, but the three old ships which make up our American Mediterranean squadron are now based there.

Only foreign airline allowed by France to fly regular services across Spain is Italy's growing Ala Littoria, with bases in every important Spanish city, in Ma-

to less than... either... in break... or... new oil... Rumania...

...and in Spanish Morocco opposite Gibraltar. As any traveler can see, Lisbon, Barcelona, and Madrid are filled with Italian (and German) business men these days. And there is no question that they are increasing their share of the foreign business in these two countries. Allied observers, sensitive to Fifth Column reports, are becoming suspicious. They remember also that a year ago there were undisguised German advisers in every important department of the Italian government and in the army. In Rome they wonder if the visitors may not still be there in the handsome uniforms of the Mussolini forces.

There is no question that the Italians lack desperately the materials for fighting a long war. No one knows this better than Mussolini, who was forced to call off his elaborate army maneuvers last summer because he couldn't even afford to waste the small quantities of materials which would be used in practicing for a war. The real question for *il Duce* has been whether the Allies would have their hands so tied by the showdown struggle in the west that he could win his Mediterranean game on the half-dozen ships that are all he has to gamble with.

F-M Gets Go Sign

FCC permits staticless radio stations to start commercial operation Jan. 1.

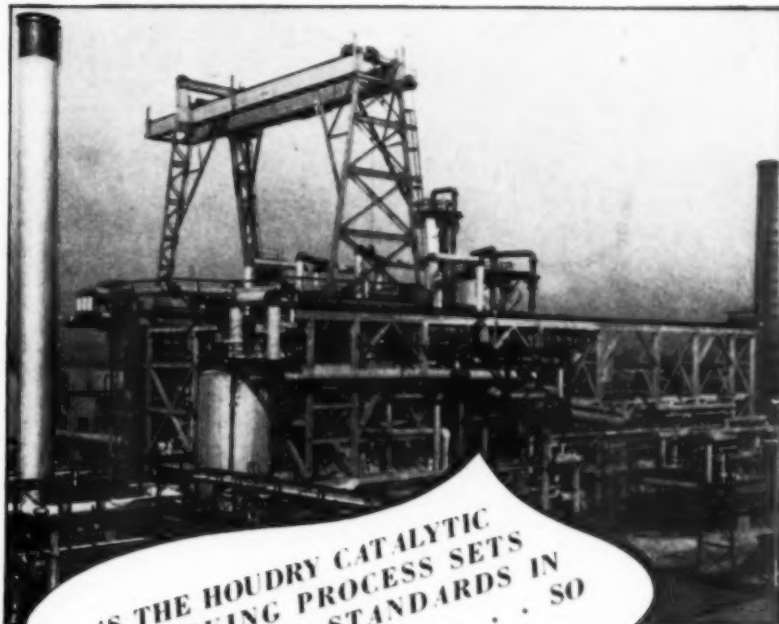
ECONOMISTS teach that air is one of the free goods. But it isn't for the broadcasting industry, which has been holding its breath for the last few weeks while the Federal Communications Commission grappled with the problem of splitting up the ultra-high frequency bands between impatient television and frequency modulation, the new staticless radio that has been clamoring for *Lebensraum* (BW—Mar. 30, p. 20). Video and f-m advocates have flocked to Washington to plead their cases; plenty was at stake.

This week the FCC announced its allocations—for frequency modulation, a complete 'go ahead,' everything its sponsors had asked; for television, no loss of space but a reshuffling, one that may all forth squawks but will likely prove more annoying than hurtful.

To understand the new allocations, think of the ultra-high frequencies—from 42,000 to 72,000 kilocycles—as divided into six parts. The first band, from 42,000 to 44,000 kilocycles, has been used by a miscellany of standard stations, governmental and educational. The second, from 44,000 to 50,000 kilocycles, has been television Channel No. 1. It's the one NBC has been using for its television broadcasts from New York.

Under the new allocations, these two bands between 42,000 and 50,000 kilocycles are merged into one—for the sole

HOUDRY PROCESS CALLS FOR TOP NOTCH INSULATION



AS THE HOUDRY CATALYTIC
CRACKING PROCESS SETS
ADVANCED STANDARDS IN
OIL REFINING SO

Carey
INSULATIONS

85% MAGNESIA AND HI-TEMP
Meet New Requirements of Industry with
Proved Performance under every condition
—from Sub-Zero to 2500° F.

Those who, by vision and enterprise, push forward into new fields—set advanced standards in industry—demand advanced standards in the products their operations require.

E. B. Badger & Sons Company, Licensing Agents for the Houdry Catalytic Process, are extensive users of CAREY Hi-temp and 85% Magnesia Heat Insulations in the construction of modern refineries. Like other important engineering organizations, they know that CAREY Insulations meet their specifications, no matter how rigid.

Through continuous research, CAREY has kept in step with the swift pace of industry—producing insulations that stand up to higher and higher temperatures—to tougher and tougher jobs.

Insulation involves too much for you to risk the use of unproved materials. Make sure of maximum efficiency and permanence by relying on CAREY Products. A nation-wide organization is at your service. Write today for Insulation Catalog—use coupon.

THE PHILIP CAREY COMPANY • Lockland, Cincinnati, Ohio

Dependable Products Since 1873

BRANCHES IN PRINCIPAL CITIES

ASPHALT—ASBESTOS—MAGNESIA

Roofing
Flooring
Insulations
Roof Coatings
and Cements

Waterproofing
Materials
Expansion Joint
Asbestos Paper
and Millboard

The Philip Carey Company
Dept. 29, Lockland, Cincinnati, Ohio
Send Insulation Catalog

Name
Address
City
State

Announcing NEW WAY TO SOLVE SALES PROBLEMS

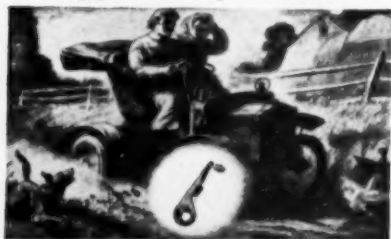
● Do you have some product that isn't selling as it should? Or that does not fit your present selling organization? Or a new product on which you want the right answers on price, potential and method of selling before you turn it over to your sales force? Or a product you don't want to put your name on until you're sure it will sell? Or a subsidiary that isn't clicking?

● We get the answers for you by selling. Not "a survey" but the hard way of making volume sales, getting distributors, testing name, packaging, prices, discounts, necessary commissions—everything you need to know through closing actual volume sales.

● Names on request of other important companies we have served. We would like to discuss any sales problem you may have and suggest how our specially trained staff can help solve it.

THE GORDON ARMSTRONG COMPANY
3925 Shaker Square Station
CLEVELAND, OHIO

Nail Files Had An Amazing Opportunity... Once



Back in the days when motorists careened along at speeds as high as 10 and 12 miles per hour... these early gasoline juggernauts would frequently come to an annoying, sputtering stop. This was usually a signal that the expensive platinum contacts needed redressing, and a nail file was most often the accepted tool for this function.

Then... hard, long-wearing Mallory Tungsten Contacts gradually replaced the costly, short-lived platinum and as far as automobiles are concerned, nail files have gone with the dusters and goggles. Thanks to Mallory's constant research and testing, Tungsten contacts require little or no attention.

Mallory is the only company making electrical contacts for all services. Regardless of the problem... if it involves contacts or contact materials... Mallory can serve you.

P. R. MALLORY & CO., Inc.
INDIANAPOLIS INDIANA

Cable Address—Pelmallo

P. R. MALLORY & CO., Inc.
MALLORY

PARTS FOR RADIO, ELECTRICAL,
AUTOMOTIVE AND INDUSTRIAL FIELDS

use of frequency modulation. Television (that is to say, NBC) has been kicked out. The educational and governmental stations will adopt frequency modulation. In the whole space there will be room for 40 f-m channels, each 200 kilocycles wide, with 35 channels for commercial stations and 5 for non-commercial. Since f-m stations on the same channel can be located about 300 miles apart without any serious interference, there seem to be enough channels to blanket the country.

Above the new f-m band, from 50,000 to 56,000 kilocycles, lies the old television Channel No. 2 (now used experimentally by CBS in New York). It will henceforth be called Channel No. 1.

From 56,000 to 60,000 kilocycles is an unchanged band for amateur "hams."

From 60,000 to 66,000 kilocycles lies what has been a government band—used by the Army, Navy, Coast Guard, etc. That band the government is giving up, and it will become television Channel No. 2. Above that is television Channel No. 3—unchanged. General Electric has been using it for television from Schenectady, and is unaffected by the new allocations.

Where Will NBC Fit In?

Major interest centers in what will happen to NBC, far and away the most active of the televisers up to date. Will NBC be forced to skip all the way up to the new No. 2 channel? Or will NBC simply move up one notch to the new No. 1, with CBS in turn moving to the new No. 2? Trade betting just now is that FCC will order the latter course, unless NBC and CBS get together and amicably decide that there's no point in both of them going to the considerable expense of stepping up their transmitters. If they don't and the FCC orders NBC to do all the moving, the commission will be wide open to charges of discrimination—something it would no doubt like to avoid after the recent feud with NBC over commercialization of television (BW—Apr 20 '40, p. 22).

In any event, there are going to be plenty of headaches. It is harder to generate television power in the higher frequency channels (although static is reduced); so there will be plenty of engineering problems with the move-up. And all television receivers will have to be changed. Those that have been sold have blank spots where the new No. 2 channel has been fitted in. Probability is that manufacturers will call in the receivers and change them during the period that transmitters are being stepped up—a job, incidentally, that NBC told the FCC would take four months.

F-m broadcasters can begin sending out commercial programs next Jan. 1, and the FCC has applications pending or has already licensed about 150 stations. But despite its advantages of high fidelity and freedom from static, it will

Counsel for the FCC



Harris & Ewing

TELFORD TAYLOR hasn't had any experience in communication and broadcasting, but the Federal Communications Commission's new 32-year-old general counsel comes to the post with an extensive background of holding company and corporate financing, gained during four years of service in the Senate investigation of railroad finances—including the probe of the Van Sweringen empire and other railway combinations. Since the financial structure of broadcasting companies and stations is becoming a more and more important phase of FCC regulation, New Dealers feel the new general counsel will fit right into the present Commission program of intensifying its supervision over radio.

take f-m a long time to supplant the present form of broadcasting. Biggest hurdle is the replacement of present receivers—there are about 29,000,000 radio homes—with sets capable of picking up f-m broadcasts. General Electric, Stewart-Warner, and Stromberg-Carlson are already offering f-m receivers, and a dozen other manufacturers will shortly be in the market. Probability is that during the long transition period the popular models will be ones equipped for both f-m and standard broadcasts.

Standards Dispute Persists

Next big problem for the FCC to settle is the controversy over television standards (BW—Apr 20 '40, p. 22). RCA wants commercialization under the present 441-line, 30-frames-per-second transmission. Allen B. DuMont Laboratories has been the strongest opponent, claiming television would be retarded by "freezing" standards. Latest development in the battle came when RCA charged that DuMont, partly owned by Paramount, is anxious to keep television inferior to motion pictures.

THE SWEET POTATO THAT BECAME A *Mother!*

UNTIL Dr. Julian C. Miller frightened a plant into motherhood, all American grown sweet potatoes came from tuberous roots bred in the tropics. Our native sweets never produced seed. And without seed there could be no improvement in existing plants.

But now American farmers can breed undreamed-of types . . . perhaps come up with that long-awaited paragon the perfect super-sweet which will beget plants true to form from seed.

Down at Louisiana State University, Dr. Miller nursed a potted sweet potato plant the first winter under glass . . . set it out next spring along a trellis. The second year, he cut a cruel gash three quarters through the vine . . . blockaded the roots, forced sugars and starches into leaf and stem.

Then the plant made her heroic decision. Though

it might cost her life, she would burst into bloom and seed, to make secure the perpetuation of her family.

This is just part of a thrilling story of plant breeding in *Country Gentleman*. The map-changing consequence of this particular chapter is that the sweet potato plant may provide the South with a livestock feed for the first time in history. It is also part of a deep-rooted reason why you should perpetuate your product through the advertising pages of this magazine.

For reading like this is meat and drink to Agriculture's top two million families. Remember that *Country Gentleman* is packed with this kind of vital news of livelihood month after month and you begin to realize why no other magazine can mean quite so much to its readers . . . or its advertisers!

Country Gentleman

AGRICULTURE'S TOP TWO MILLION



Utilities Map Death Sentence Fight

SEC proceeds warily to avoid court test, but replies of eight systems to integration queries reveal that the most typical attitude is: "We dare you."

LATE IN FEBRUARY and early in March the Securities and Exchange Commission served orders on nine of the country's largest public utility systems asking them to submit answers to a group of allegations. All these allegations are simple enough on their face, but they set the stage for the final phase of the SEC's effort to administer the famous death sentence of the Public Utility Act of 1935.

Eight of the nine companies served with orders have now submitted their answers. On June 3 the ninth—Cities Service Power & Light—is due to file its reply. And, as these answers are filed, it gradually becomes more clear how each of the companies has laid out its plan of battle against this controversial law.

First off, it's pretty clear that most of the systems intend to fight the whole thing out in the courts. This defense might easily take five years.

But, before the companies can go to court, they have to have something to sue about. The mere fact that a law seems unconstitutional isn't enough. When the holding company law was taken before the Supreme Court in 1938, the jurists ruled that there was no basis for considering the death sentence clause until somebody had been hurt by it.

The SEC had this very thing in mind when it issued its series of orders. It didn't compel the nine companies to divest themselves of any of their holdings. It didn't say that they must bring in a plan for geographical integration of their properties, although they were told they might include such plans if they chose. It simply told them to admit or deny certain things about their corporate and geographical setups.

The allegations which they were asked to admit or deny tended to show that properties were not integrated geographically. Once all the answers are in, the SEC will go ahead with hearings on them. Then, pretty clearly, it is prepared to find that the systems do not constitute "one or more integrated public-utility systems" as the law requires. Next it becomes a question of whether the commission can get the utilities to integrate voluntarily (perhaps by the conference table method) or whether it will have to issue specific orders telling this system and that what properties they must get rid of in order to fulfill the requirements of the law.

Most of the utilities at the moment are trying to jockey the commission into issuing specific orders. The moment one

What to Look For

THE PUBLIC UTILITY ACT of 1935 prescribes that public utility holding companies must attain geographical integration of their properties, but it is pretty vague about just what integration means. The maps on the facing page show how the systems of nine major companies look, and these maps are part of the federal authorities' argument that the present situation is a long way from integration.

Yet the maps also show that the properties within some of the systems lend themselves to certain groupings. Electric Bond & Share, for example, has figured for a long time that it could resolve itself into three pretty well integrated properties, and other companies tend strongly to similar plans.

of the systems is told it must divest itself of a property it can run to the courts shouting it has been hurt. Then constitutionality of the law becomes a *bona fide* issue for the Supreme Court.

Before that point is reached, the sparring will be pretty cautious and only students of the situation will have much idea of what is going on. Meanwhile, the best way to keep an eye on the ball is to have some idea of the contents of each of the answers filed. The following is a brief résumé for each of the eight systems which has complied to date:

Commonwealth & Southern says any attempt to make it divest itself of its holdings would be unconstitutional.

Electric Bond & Share's answer challenges the SEC's jurisdiction and the constitutionality of the act.

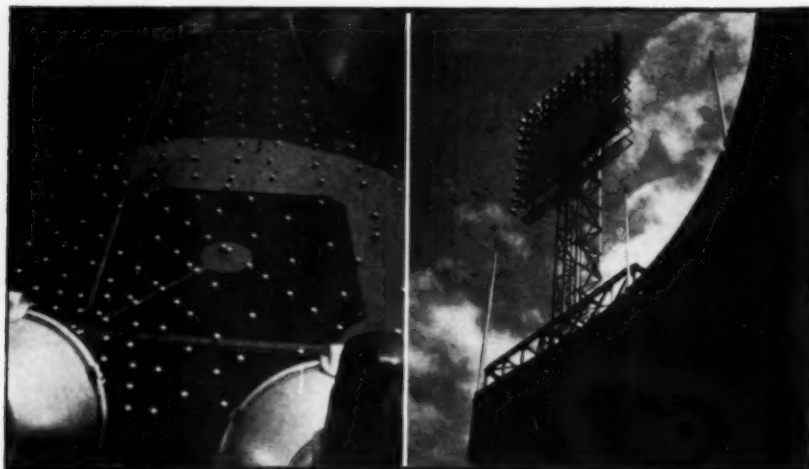
Says Split Damages Properties

Engineers Public Service contends that each of its groups of properties (like the one in Virginia and North Carolina or that in Texas and Louisiana) constitutes an integrated system and indicates that it intends to go ahead operating all of these systems. It challenges constitutionality of dismemberment, saying that each group of properties would be damaged if it had to be split off.

Middle West would divest itself of its properties in South Dakota, Nebraska, central and western Kansas, and northern Missouri. The plan then is to run the southwestern properties as one system, the Illinois-Missouri-Kentucky-Indiana-Wisconsin group as a second.

North American says Section 1 (b) of the act "enumerates" certain specific abuses and Section 1 (c) states that the provisions of the act are . . . to eliminate such abuses," but that North American has never been guilty of any of the abuses cited. The company goes on to state the many reasons why it believes the holding

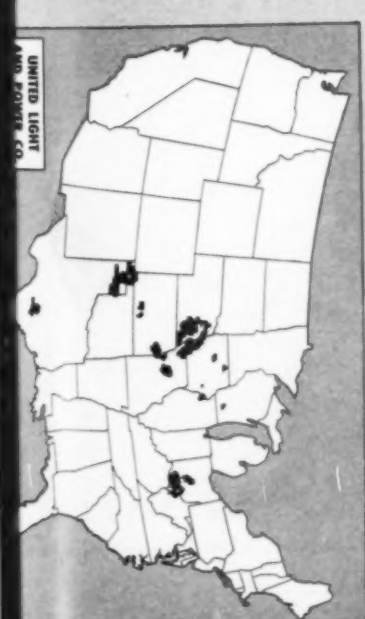
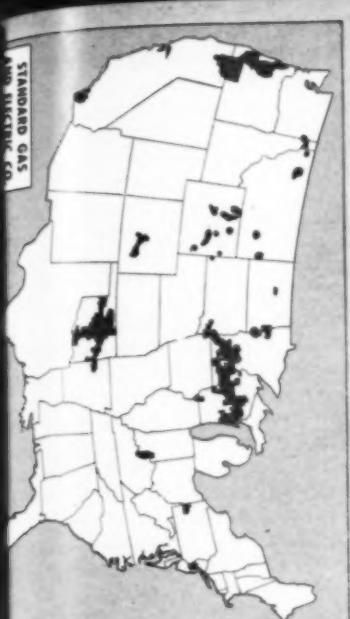
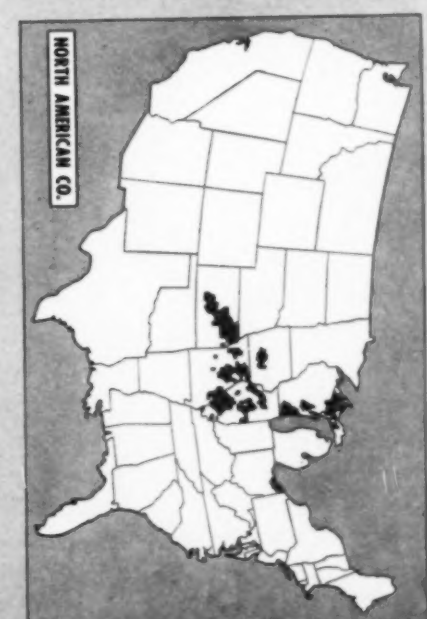
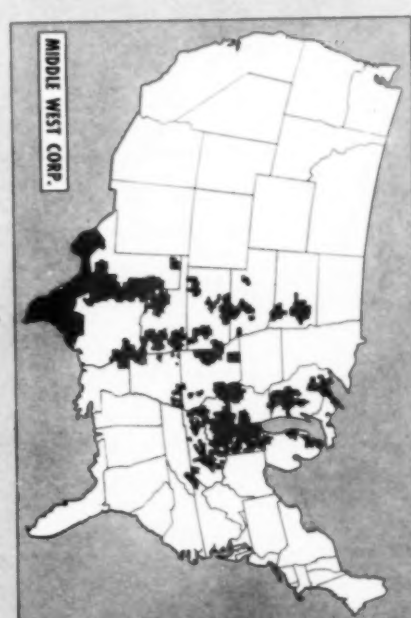
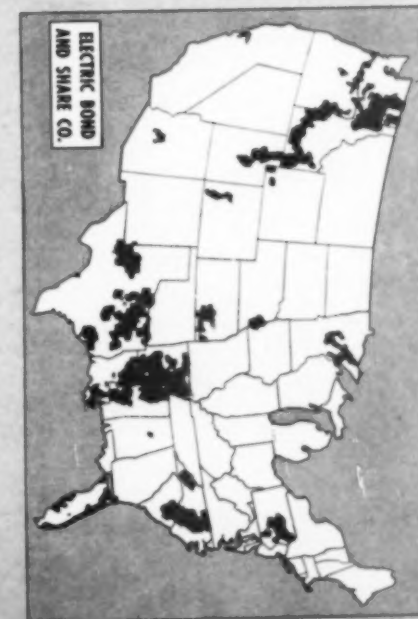
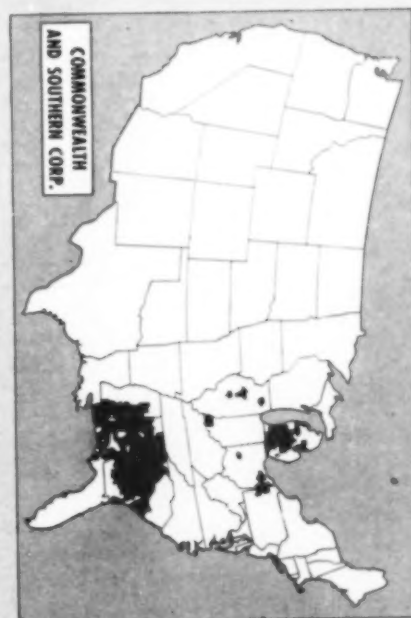
Westinghouse Lights Up the Giants



The New York Giants played their first game of night baseball at the Polo Grounds this week—in the glare of a 200,000,000-candlepower lighting system built by Westinghouse Electric, consisting of 836 individual

floodlights, mounted on eight steel towers (right) on the grandstand roof. For a final check on the system last week, Westinghouse spotted 836 cardboard boxes on the field (left) as targets for the 836 lights.

HOW THE UTILITY SYSTEMS LOOK AS SEC DEMANDS ACTION ON INTEGRATION



25, 194

of 1935

ty hold-

an geo-

ic prop-

about

- The

low

or com-

as are

ities' ar-

situation

tion.

that the

the sys-

certain

& Share,

or a long

itself into

prop-

ties tend

must dive

run to the

hurt. Then

becomes a

ne Court.

ed, the spar-

s and only

have much

Meanwhile,

on the bal-

contents of

the follow-

of the eight

to date:

n says any

itself of its

tional.

answer chal-

on and the

erties

ontends that

ies (like the

Carolina or

na) consti-

nd indicate

operating al-

ges consti-

saying that

uld be dan-

itself of its

, Nebraska,

and northern

to run the

one system.

ky-Indiana.

ion 1 (b) of

ain specifi-

ates that the

to eliminate

h American

of the abuses

to state the

the holding

WHERE CAN YOUR EMPLOYEES GET LOANS FOR EMERGENCIES?

WHEN a worker has an unusual expense that he can't meet out of current income or savings, he should have a place to borrow. Some companies make emergency loans to their employees. In other plants workers have their own credit unions.

Loans for workers

But most employees must borrow elsewhere. For this reason many states have passed laws making possible the establishment of legitimate small loan service. In these states the responsible worker can borrow cash for emergencies quickly, privately and at reasonable cost. He needs no bankable security, no guarantors or endorsers. For his protection the law regulates every step of the transaction.

Last year Household Finance made over 800,000 such loans to workers in all branches of industry. These loans helped the borrowers to clear up over-due bills, meet hospital and dental expenses, pay taxes, keep insurance in force—solve scores of family money problems.

Borrowers at Household repay their loans in convenient installments, which average less than 8% of their monthly income. Thus they can get out of debt without sacrifice of living standards. Below are some typical loan plans.

AMOUNT OF CASH LOAN	AMOUNT PAID BACK EACH MONTH Including All Charges				
	2 mos. loan	6 mos. loan	12 mos. loan	16 mos. loan	20 mos. loan
\$ 20	\$ 10.38	\$ 3.63	\$ 1.95		
50	25.94	9.08	4.87		
100	51.88	18.15	9.75	\$ 7.66	\$ 6.41
150	77.82	27.23	14.62	11.49	9.62
200	103.77	36.31	19.50	15.32	12.83
250	129.71	45.39	24.37	19.15	16.04
300	155.65	54.46	29.25	22.98	19.24

Above payments figured at 2½% per month and based on prompt payment are in effect in Massachusetts and several other states. Due to local conditions, rates elsewhere vary slightly.

Help in money management

With Household Finance loans goes help in money management and better buymanship—practical guidance in getting more out of limited incomes. Household's consumer publications, developed for this work, have been adopted by hundreds of schools for classroom and reference work in home economics.

Don't you want to know more about this service for your employees? The coupon will bring further information. No obligation!

HOUSEHOLD FINANCE CORPORATION and Subsidiaries

Headquarters: 919 N. Michigan Ave., Chicago
"Doctor of Family Finances"

America's largest family finance organization, with 281 branches in 183 cities

HOUSEHOLD FINANCE CORPORATION, Dept. BW-E
919 N. Michigan Ave., Chicago, Ill.

Please tell me more about your loan service for wage earners—without obligation.

Name

Address

City State

company law is unconstitutional. It outlines the many things it has done to simplify its system. Nevertheless, the company is willing to integrate into two systems. It would dispose of its control of Washington Electric & Railway, serving the District of Columbia, and of the Wisconsin and Michigan properties. The property serving the Cleveland area would be retained as one system and the Illinois-Missouri-Iowa-Kansas group as a second.

Standard Gas & Electric, which has for two of its chief executives George C. Mathews, until lately a member of the SEC, and Leo T. Crowley, ex-chairman of the Federal Deposit Insurance Corp., expressed its intention to comply with the law in every particular. Standard Power & Light, the answer said, will be dissolved as soon as a simplification and integration program can be worked out for its parent, Standard Gas & Electric.

United Gas Improvement said the SEC

should have arrived at a "tentative determination" of the steps to be taken to secure geographic integration.

United Light & Power outlined its desire to sell properties worth about \$135,000,000 and to acquire others of about the same value in order to integrate. By adding certain properties now owned by North American and Middle West, the company says it can form an integrated system around its properties in Nebraska, Iowa, Missouri, and Kansas. A second system would be formed around the Ohio properties.

The above summary shows a cross-section running all the way from unwavering opposition to complete acceptance. A couple of the companies imply that they will go along if the SEC accepts substantially the plan they propose, but will fight if they are crossed. And the most typical attitude is: "We'll dare you!" If the SEC accepts the dare, these companies will go to court at once.

News: TVA Aids Private Business

Vast experimental empire, dedicated to economic reconstruction of the South, fosters new industries and opens new markets for old ones through research.

"HOUSE DEBATES NEW TVA DAMS"
"TVA BRANDED SOCIALISTIC ENTERPRISE"
"WILLKIE DEMANDS FAIR DEAL FOR UTILITIES IN TENNESSEE VALLEY"
"SENATE PROBES MORGAN-LILIENTHAL FEUD"
"TOWNS DEMAND TVA RESTORE LOST UTILITY TAXES"

SEVEN YEARS OF SUCH HEADLINES chart in harsh detail the troubled course of the

Tennessee Valley Authority as it has moved with an unerring instinct for political tribulation from storm center to storm center. It is a history of endless controversy.

In the same seven years—the project's birthday was last Saturday, May 18—TVA has compiled another history which has by no means been so well-documented in the press. It is a history of sober sci-



TVA's experimental quick freezing plant broadens "economic opportunity."

...ative deter-
he taken to
on.
outlined its
worth about
re others of
order to inte-
a properties
merican and
says it can
around its
ra, Missouri,
m would be
perities.
is a cross-se-
m unwaver-
acceptance.
imply that
EC accepts
propose, but
d. And the
"We'll dare
e dare, these
t once.

Business
Economic
ies and
eh.

as it has
net for pe-
a center to
of endless

he project
May 18—
story which
documented
sober scienc-

By using brains instead of cast-iron,
Studebaker engineers have relieved the
Studebaker Champion of more than 500
pounds of needless bulk and weight.
And this weight elimination shows to
advantage every mile a Studebaker
Champion travels—in 10% to 25%
savings on gas over other large-selling
lowest price cars—not to speak of the
Studebaker Champion's savings on oil,

rtunity."

This "good luck" horseshoe shows why Studebaker Champion saves money for fleet buyers



Elimination of needless weight-drag helps Derby Champions... cuts gas consumption of Studebaker Champions 10% to 25%!

WHEN a Thoroughbred gallops around the Derby course, he picks up his feet 1320 times.

Ordinary steel racing horseshoes weigh 4 ounces apiece. Aluminum alloy shoes weigh half as much.

The horse wearing aluminum shoes picks up 2640 ounces less weight—165 pounds less drag on energy and stamina.

That can mean the difference between being in the money or out of it.

Studebaker Champion combines horse sense with horsepower

By using brains instead of cast-iron, Studebaker engineers have relieved the Studebaker Champion of more than 500 pounds of needless bulk and weight.

And this weight elimination shows to advantage every mile a Studebaker Champion travels—in 10% to 25% savings on gas over other large-selling lowest price cars—not to speak of the Studebaker Champion's savings on oil,

savings on tires and mechanical upkeep.

Studebaker Champion handles better, rides better, holds road better

See your local Studebaker dealer and get convincing facts on the success of the Studebaker Champion in fleet use. Go for a convincing trial drive yourself and experience the Studebaker Champion's matchless ride, handling ease and sure-footed safety. Notice the enormous carrying capacity of the coupe rear deck. Studebaker service is nation-wide and you can finance your payments on C.I.T. terms if you wish.



Champion averaged 29.19 miles per gallon in America's greatest gas economy test. In this year's Gilmore-Yosemite Sweepstakes, a stock Studebaker Champion, with expert driver and low-extra cost overdrive, decisively defeated all the other largest-selling lowest price cars in gas economy. The Champion averaged 29.19 miles per gallon.



Sound workmanship assures low upkeep cost and high trade-in value. The 7,700 permanent master craftsmen who build Studebaker Champions average 42 years of age and over 11 years on their Studebaker jobs.

A new freedom for secretaries!

and a new help for busy executives



DO TOMORROW'S WORK FASTER...AND EASIER!

There's a new lightness of touch in this new L.C. SMITH...a new speed...an ease of action that reduces fatigue.

New typing aids, too, that increase your efficiency, save energy:

Seven positive touch adjustments, from very light to EXTRA HEAVY...adjust for your own touch. New Automatic Margin Set (one-hand operation to set or clear!), famous Floating Shift...Improved Tabulator...Interchangeable Platens...Half-Spacing!

...in our honest opinion...the easiest-writing, the most economical, the most efficient of office typewriters, this new L.C. SMITH should be seen and tried by everyone who buys or uses typewriters. It is, indeed, "a secretary's dream come true!"

Free demonstration in your office...phone any branch or dealer.

L. C. Smith & Corona Typewriters Inc.
Desk 5, 107 Almond St., Syracuse, N.Y.



SECRETARIES:
Send for this new edition of "Tips to Typists"...a useful little booklet of time-saving ideas on typing. Free on request.



THE NEW *Super-Speed* L C SMITH

...makes long jobs shorter...means a new freedom for secretaries



The furrow-seeder, low-cost machine developed by TVA, is being produced by a private manufacturer.

tific accomplishment in the field of industrial and agricultural research. It is a story of economic reconstruction—whole apart from disputed questions of power production and flood control—in an area as large as Great Britain. It is the story of an experimental program, largely grounded in the Authority's selfish desire to find new uses for the vast quantities of power it is generating but promising, nonetheless, widespread benefits to private business. Already, as a matter of fact, industry is beginning to cash in on TVA's research. For example:

The fertilizer and soil erosion control program in the Tennessee Valley required development of special machinery suited to hillside farms, and to be sold at prices which the average small farmer could afford to pay.

A simple machine developed by TVA engineers plows furrows in the hard soil and drops grain and fertilizer, all in one operation. Demonstrations were given on many farms. Then a private manufacturer, B. F. Avery & Sons Co., Inc., Louisville, Ky., began production of such a seeder. The low price (\$22.50) has encouraged sales to farmers in eight states.

Indefatigable Developers

Other types of low-cost farm machines are now under development by engineers in TVA's Commerce Department or in the state agricultural experiment stations with which the department cooperates. These range from equipment to clean legume seeds to harvesters and threshers to recover seed and small grains and to an automatic electric grinder to make them available as stock feed.

Like the furrow-seeder, which was given tests and demonstrations before being put on the market by private business, a newly-developed low-cost threshing machine is being tried out first. It is simpler and smaller than the conventional threshing machines. Engineers figure it

can be manufactured to sell for less than \$800. Mounted on a trailer, it can be moved about rapidly on highways behind an automobile.

Unexpected rains often spoil hay crops. So TVA research developed a low-cost barn hay drier, using a purchased motor and fan and a home-made duct system.

Other research has developed walk-in types of community refrigerators, electric hotbeds, electric heating systems to maintain steady, uniform conditions for curing and storage of sweet potatoes. At Norris and other TVA communities there have been extensive trials in electrical heating of homes and stores.

Quick-Freezing Strawberries

TVA's work in developing a new quick-freezing process promises similar benefits both to local growers and to equipment manufacturers. Trial production and merchandising efforts begun two years ago were considerably expanded last year (BW—Jun 3, 39, p. 43). Farmers around Cleveland, Tenn., brought truckloads of strawberries to a building on the outskirts of the town. The berries were put into an entirely new machine designed by TVA industrial engineers, which froze each berry into a solid red marble. Freezing time: six minutes. The berries, 88,000 pounds of them, were then put into a refrigerated truck, and hauled to a specially-designed, zero-temperature barge. The barge went down the Tennessee River and the Ohio, up the Mississippi to St. Louis, where the product—contracted for months before—was turned over to the purchasers at premium prices. Weeks or even months later, when the berries were used, it was reported that they retained the taste and shape of fresh strawberries. The same invention has been adapted to the quick-freezing of other fruits and vegetables, meats and poultry.

The freezing process and machine were invented and developed by research in co-

AIR CONDITIONING?

*Call in the expert—
Call in
Frigidaire*



**Exclusive Frigidaire Profit
Analyzer shows you
in 15 minutes what
Air Conditioning can
do for your business**



● Gone with guesswork! Now you can know *before you buy* what Frigidaire Air Conditioning can do for you. Frigidaire's new and exclusive method, using copyrighted material, shows you not only whether air conditioning should be *profitable*, but how much profit *you* can reasonably expect, and what *your* air conditioning installation should *cost to own and operate*.

In addition, Frigidaire Unit Package Air Conditioners save on space, installation costs, operating expense. And they can be quickly installed, easily moved. Investigate today. See nearest Frigidaire Air Conditioning dealer, or write Frigidaire Air Conditioning Division, Dayton, Ohio.

Frigidaire Commercial Air Conditioners cool, dehumidify, filter, and circulate the air. Readily equipped for ventilating and heating. Quickly fitted into most any interior—easily moved. Take minimum of floor space.

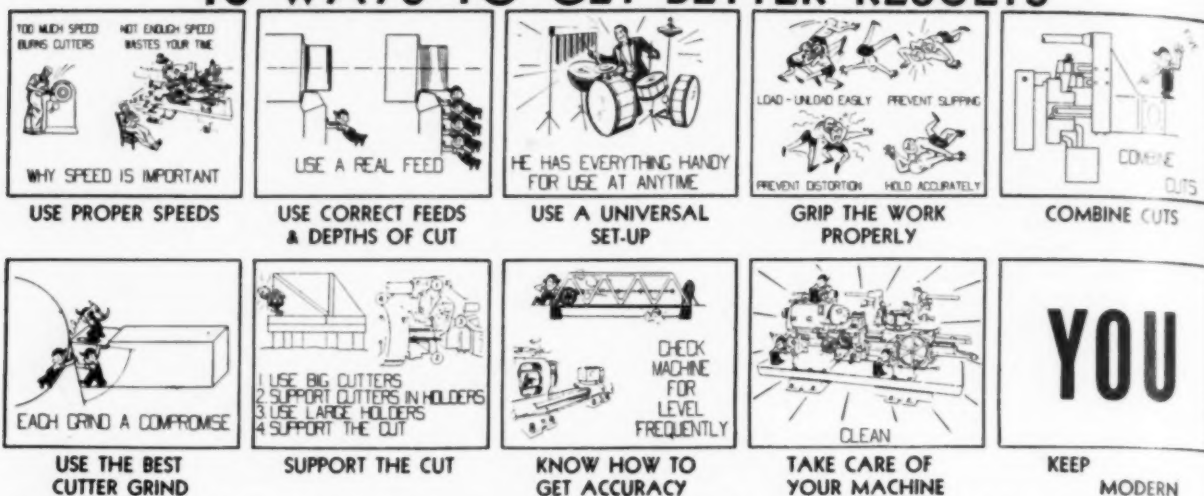
★ ★ ★

Frigidaire Products include: Unit and Central System Air Conditioners, Water Coolers, Milk Coolers, Frosted Food Merchandisers, Beverage Coolers, Refrigeration Equipment for display cases, walk-in and reach-in coolers.



TVA experiments in the electric firing of chinaware have benefited the U. S. ceramic industry.

10 WAYS TO GET BETTER RESULTS



On the same day that President Roosevelt appealed through Congress to the nation's manufacturers for immensely greater production of war materials, Warner & Swasey Co., Cleveland, announced "an educational program designed to aid in the training of apprentices and to help the experienced operators of the country's 55,000 turret lathes." The project includes sending trained lecturers, equipped with slide films and brass-tack cartoons like the one above, into manufacturing

plants all over the country; publication of a 240-page book on turret lathe practice; and a monthly magazine to keep operators posted on latest developments in their field. Philosophy behind the project is summed up in the statement: "If all the operators of all the machine tools could improve their efficiency by only 5%, they would add more to the nation's output of metal products than could be produced by all the new machine tools to be built in 1940."

operation with the University of Tennessee at Knoxville. As soon as patent licensing arrangements are worked out, the equipment will be manufactured and put on the market by a private concern.

One private enterprise, Chickamauga Products Co., Inc., is already engaged in the quick-freezing of products, which TVA launched as one of the experiments to broaden "economic opportunity."

Another experiment that has already paid dividends to private industry is the development of a high-pressure cooker for cottonseed meal (important for the soil and income of the South). It was invented by TVA technicians cooperating with industry and university scientists. Now it is being manufactured by French Oil Mill & Machinery Co., Piqua, Ohio, and Davidson-Kennedy Co., Atlanta, and (more recently, with some slight variation) by V. D. Anderson Co., Cleveland, O. The cooker is being used by cottonseed mills in Oklahoma City, Wilson, Ark., Greenwood, Miss., Atlanta, Ga., Macon, Ga., Moultrie, Ga., and Memphis, Tenn.

In North Carolina were primary china clay deposits, which had been worked in a limited way for 50 years, but no process had been developed for refining this clay so that it could compete successfully with the imported china clays. For fine china, English kaolins had been imported. TVA carried on research in a laboratory at Norris, Tenn., in cooperation with representatives of the ceramic industry. Last year, 10,000 tons of kaolins refined

by a new process were produced near Spruce Pine, N. C., and production this year may be doubled. The kaolin is refined and shipped to ceramic industries over the United States by Kaolin, Inc., and Harris Clay Co., of Spruce Pine.

Experiments in electric firing of fine chinaware were also carried on in the TVA laboratory at Norris. Test ware was produced which is basically as good as any imported product.

The U. S. Bureau of Mines, now operating the Norris laboratory, recently has done extensive work in producing sanitary ware from North Carolina kaolins. English kaolin was formerly used almost exclusively in making such ware.

New Plastic, New Markets

Recently TVA has developed a new mica-resin plastic which it considers promising for use as an insulating agent in small electrical appliances. It regards the market as favorable and "the aid to private enterprise is substantial," as there are extensive deposits of mica in North Carolina and Georgia. The new product will provide an added market for scrap mica. Magnesium, talc, and spodumene are under investigation. For each of them the technicians have discovered new uses and methods of processing.

With extension of power lines to rural sections, sales of electrical appliances by private manufacturers and dealers have soared. Farms which meet certain requirements in home conveniences are

given certificates as "Electro-Development Farms."

Farmers in the TVA program are found to be buying more from the hardware store, the lumber yard, and the department store than they did before they agreed to follow a new farming practice, and markedly more than their neighbors who are following the earlier methods.

The University of Tennessee made a sample study of 94 test demonstration farms. In 1935, when the TVA program was instituted, these 94 farms spent \$230 per 100 acres for farm machinery, seeds, repairs in buildings and fences and the like; in 1938, the figure was \$384, with the intervening years showing a steady increase. Cash receipts increased from \$693 per 100 acres in 1935 to \$905 in 1937, and then dropped to \$794 in 1938, when a general depression affected agriculture everywhere. But the farm expenditures for 1938, which was a bad year for farm prices, exceeded those of any preceding year—\$465 per 100 acres compared to \$302 in 1935.

Alabama Polytechnic Institute made a similar study of 20 representative counties throughout Alabama. In 10 counties in which the program was being demonstrated, 11,034 tons of phosphate were used. Only 1,963 tons were produced by TVA; the rest was manufactured and distributed by private industry. In the counties in which no TVA demonstrations were conducted, only 830 tons of commercial phosphate were purchased by

Mr. Thirsty Fibre has gotten TOUGH

...but is still
SOFT
as ever!



NEW "SOFT-TUFF" SCOTTISSE TOWEL RETAINS FAMED SOFTNESS . . . YET STRENGTH IS MULTIPLIED IN USE

SOFTNESS, strength and absorbency are carefully balanced in the amazing new "Soft-Tuff" ScottTissue Towel. In actual drying conditions this remarkable towel is far tougher . . . yet it has all the *softness* and *stretch* of the famous Scott "SOFT-WEVE" Process.

As s-t-r-e-t-c-h-y, and softer than before, the new "Soft-Tuff" ScottTissue Towel has far greater *drying ability*, can be used *up to saturation*. That's why they go farther. In economy tests, the new "Soft-Tuff" ScottTissue Towel has materially lowered previous ScottTissue Towel consumption.

The "Soft-Tuff" ScottTissue Towel—a new Scott *Duralose* Product—is now

available from over 300 Scott distributors and many representatives throughout the United States and Canada. They will be glad to demonstrate to you the increased satisfaction and savings of this amazing tissue towel. Call your local Scott distributor today or write direct for samples. Scott Paper Co., Chester, Pa.

Scott Washroom Advisory Service is available to help you arrange washrooms comfortably, hygienically and economically. It will suggest how to improve traffic conditions, reduce waste and increase employee and customer good will. Write for details. **No obligation!**

Copyright, 1940, Scott Paper Co. Trade Marks "ScottTissue," "Soft-Weve," "Thirsty Fibre" Reg. U. S. Pat. Office. Trade Marks "Soft-Tuff," "Duralose" Registration applied for.

Scott Tissue TOWELS

How the new "Soft-Tuff" ScottTissue Towel helps eliminate:

LINT



Soft as it is, the new "Soft-Tuff" ScottTissue Towel is designed to practically eliminate lint being left on skin or clothes. This luxurious towel is gentle on hands and face.

TEAR

Soak an old-type ScottTissue Towel and a new "Soft-Tuff" ScottTissue Towel in water. Wrap one around each hand and rub together. See how the new towel resists tearing.



WASTE

One new "Soft-Tuff" ScottTissue Towel can dry thoroughly. Soft, stretchy, absorbent—each towel can be used up to saturation. That's why it is proving so economical under all service conditions.

PAINT

"Woodman Spare That Tree
Touch Not a Single Bough..."



In Lancaster County, Pennsylvania, is a city famous for its trees, its architecture, its watches, its linoleum. And though its townsmen would immediately jail any woodman desecrating its beautiful trees, its town fathers are proud of one of its best wood-working names—and the millions of feet of timber DeWalt woodworking machines annually turn to utilitarian beauty.

DeWalt Products Corporation is to wood-working what Warner & Swasey, Cincinnati Milling, Rockford Twist Drill are to metal working. A DeWalt woodworking machine looks the part it plays. Well-designed for sound operation, it is functionally designed to be simple and pleasing to the eye. That means a surface beauty brightly enhanced and strongly protected with Sherwin-Williams Kem Lustral—an "industrial finish" that is causing customers to enthuse almost as greatly as Sherwin-Williams' sales force.

DeWalt used to apply a spray priming coat, then a putty coat by knife, then a spray coat and then the final finish coat of enamel. When Kem Lustral was developed, it looked to DeWalt and Sherwin-Williams finishing engineers, as though a coat could be eliminated and possibly the knifing operation could be skipped by spraying the surfacer much heavier. Tests were made... conclusions drawn... reports written.

Here is the report of the S-W finishing engineer: "Job is 100% better. Not only that, but the lacquer-primer introduced enables them to save a day when necessary. Eliminating one full spray operation saves another half-hour to forty-five minutes. Spraying, instead of knifing, saves so much time it can hardly be estimated. No rejects. A much tougher and more uniform finish. Customer finds sales are improving materially."

In Lancaster, in Peoria, in Portland, Maine, or Portland, Oregon, Sherwin-Williams Finishing Engineers and Sherwin-Williams Industrial Finishes are aiding sales-minded industrial firms to ride the crest of a cost-saving, machinery-selling wave. "Not all the answers, but an awful lot of them" is our motto. We can probably help you better because we've spent so much time helping others. Write The Sherwin-Williams Co., Cleveland, Ohio.

**SHERWIN-
WILLIAMS**
INDUSTRIAL FINISHES



farmers. In other words, private industry sold about eleven times as much of its product in the counties where the public investment had been made than in those in which there had been no government activity.

What TVA has done to further navigation, electric power, flood control and soil conservation is aiding not only the region, but private business.

Experiments have been quietly conducted into the electrical heating of homes, offices, stores and a school. Business technicians have studied the reports, which include complete details and charts. TVA's own widely known "model town" of Norris, near Knoxville, with its different types of homes, served for some of the electrical heating experiments. The result has been a stimulation of electrically-heated homes built by private business and possibilities of a new business field in the South, despite the fact that the electrical heating did not prove satisfactory during the severe 1939-40 winter. A private contractor, Stuart Fonde, of Knoxville even went so far as to make this offer on his all-electric homes:

"Nice lot—in woods—well restricted—playground—fully insulated—copper sheet metal—slate roof—copper screens. All-electric heat with guaranteed bill of \$70

per year (the estimated heat cost is \$34 per year). Electric dishwasher—electric garbage disposal—kitchen fan—electric hot water heater—copper pipes—built-in wardrobes—General Electric metal kitchen cabinets—attached garage—and many other worthwhile features."

He offered the electrical home on a down payment of \$600 and monthly payments of approximately \$43.20. He figured those electrical homes would save on help, \$24 a month; on cleaning, \$3 a month; on average payment on principal, \$18 a month.

That all-electric home is symbolic of the New South—the change which has come about in the Tennessee Valley area by experiments of an empire within an empire.

A River Comeback?

New private navigation lines begin operation on Tennessee as result of TVA canalization.

SINCE THE TVA CANALIZATION projects began to approach completion, private navigation lines have started operations on the Tennessee River which point toward a large volume of traffic in a wide variety of products. As yet, how-



Navigation on the Tennessee River isn't new, but TVA's accomplishment in making it a year-round waterway has begun to attract new business—and lots of it. The new burst of commercial activity on the river is well-illustrated in this Guntersville, Ala. scene, where a tow of gasoline barges is leaving the bulk

storage plant of the Gulf Oil Co. In the foreground is a string of tank cars for rail shipment from the plant. Across the inlet (and out of sight) is O. J. Wall's grain elevator. And on the right is the car ferry of the N. C. & St. L. R. R.—which was operated long before the TVA began work on the Tennessee.

ever, the total movement is a mere trickle compared with the possibilities. TVA scrupulously keeps to the shore, offering no subsidy whatever to the lines and putting no boats in the water itself.

Navigation, of course, is not new for the Tennessee, a river on which the steamboat has had a long history. But until the coming of the TVA locks and dams, there were limitations—both seasonal and as to depth of channel.

In 1932, Tennessee River traffic from Knoxville to Paducah, on the Ohio, amounted to 750,000 tons. Volume increased steadily until 1936, when it reached 2,166,000 tons; then fell away in the 1937 depression to 1,377,000 tons.

There has been for years a downstream movement of an average of some 150,000 tons of forest products. This continues about as it was before the TVA began to complete the 9-foot channel from the Ohio to Knoxville, nearly 650 miles. There already is a dependable 7-foot navigation depth from the mouth of the Tennessee to the first completed dam at Pickwick, and thence a 9-foot channel is available to some distance above Chattanooga.

Used for Gasoline Distribution

With canalization, major oil companies quickly saw the opportunities of floating gasoline up the Tennessee in barge tows for distribution in the valley and adjacent territory. Gulf Oil led with a marine terminal at Guntersville, Ala., shipping down the Mississippi from Wood River, Ill., up the Ohio, and thence the Tennessee.

Texas announced plans for terminals at Guntersville and at Chattanooga. Meantime, the rail lines serving the Baton Rouge territory got permission from the ICC to reduce rates drastically on gasoline from that producing area to points on the Tennessee. But Gulf has kept its barge shipments going, and Texas continues with its two river terminal projects. At least one other big oil company is said to be considering plans to join the procession of river barges.

Savings Induce Investment

Last year the Mountain Milling Company at Chattanooga contracted a trial shipment of grain from the Middle West by water. Because of the showing made, the company has sponsored a private navigation line that has a new Diesel tow boat and three modern steel barges. On a recent maiden trip, this outfit brought 75,000 bushels of wheat 692 miles from St. Louis to Chattanooga in seven and a half days. Further TVA improvements now in progress on the river are expected to cut at least a day from the upstream trip.

Transportation savings by water, even on the basis of a cargo haul one way and a return trip empty, apparently justified the company's investment, reported to be close to \$100,000, in barge-line equip-

INDUSTRY *Speaks* FOR ITSELF



"We have had group insurance in this plant for nine years. In a good many instances it has been a real life saver to the family in case of death. It is my belief that all of our employees appreciate the opportunity to get insurance so cheap and we heartily recommend it to those who may not have it."

MAY HOSIERY MILLS, INC.

Modern mass production of textiles, born in the New World, was among the very first American industries to assume major proportions and, characteristically, American textile manufacturers were also among the first to give their employees the benefits and security of modern group insurance.

Today textiles rank first in the American industrial roster with over 1,230,000 employees. The letter quoted above speaks for itself concerning the very real human and business values set upon group insurance by many hundreds of textile leaders.

For a thoroughly practical viewpoint on group insurance as it applies to both large and small organizations, write for a copy of "The Protected Pay Envelope." This interesting and informative booklet describes the working features of Connecticut General's new coordination of group insurance benefits, how it is working in many organizations today — how it can apply to yours.

Connecticut General Life Insurance Company Hartford, Connecticut



Life, accident, sickness insurance,
annuities, and all group lines

The night
I went back
to the plant
I learned
something
important!

"I walked right into the plant without being seen by a soul. Suddenly it dawned on me that any one else could do the same—a burglar or a fire-bug. That experience made me realize we needed better plant protection."



"So I got Cyclone on the job. Those fellows sure know fence. Helped me get just the right enclosure for our plant. They showed me a lot of Cyclone features I could see were worth while. And their price was right, too."

"Well—that's off my mind. Now we don't have to trust to luck. With a watchman at the gate, we know who comes in or goes out, day or night. Any plant manager who wants to take a load of worry off his mind ought to call in Cyclone. Mail the coupon. Cyclone's advice and estimate won't cost anything."



CYCLONE FENCE COMPANY
General Offices: Waukegan, Ill.
Branches in Principal Cities
Standard Fence Company, Oakland, Calif.
Pacific Coast Division
United States Steel Export Company, New York

CYCLONE FENCE CO., DEPT. 450
Waukegan, Ill.

Please mail me, without obligation, copy of "Your Fence—How to Choose It—How to Use It." I am interested in fencing: ☐ Industrial; ☐ Playground; ☐ Residence; ☐ Estate; ☐ School. Approximately.....feet.

Name.....

Address.....

City.....

State.....

FREE!
32-Page Book
on Fence

All the facts you want to know about fence. 14 kinds illustrated. This book will help you choose the right fence for your property—business, school or home. Whether you need just a few feet of fence or miles of it, buy no fence until you see what Cyclone has to offer. Mail the coupon, today.



CYCLONE FENCE

UNITED STATES STEEL

ment. A round trip is expected to average three weeks, counting all delays at terminals. Later, a cargo outbound may be obtained, as there are many schemes in the valley for using the river's navigation possibilities.

At Gunter'sville O. J. Wall, a local grain merchant, has just placed in service on the waterfront an elevator equipped to handle shipments by barge from terminals on the upper Mississippi, the Illinois, and the Missouri. A derrick unloads the grain from the barges to a conveyor leading into the elevator. The latter loads into box cars or motor trucks for delivery to a wide southeastern area.

There have thus far been very few export shipments by water from the valley. No cotton has gone out from the large producing area in the lower watershed of the Tennessee, but 2,500 bales of cotton linters recently were barged from Cairo, Ill., to Chattanooga. Another 5,000 bales of this by-product are reported about ready to follow the same route.

TVA has no plans to build cargo-handling facilities along the river, considers this is not one of its functions.

Cotton Stamps Hailed

Merchants are enthusiastic after FSCC launches latest plan in Memphis during annual festival.

LAST WEEK brought the first anniversary of the "Food Stamp Plan" of the Federal Surplus Commodities Corp. for moving the nation's surplus foods into the larders of relief families. But the birthday was second in interest, as far as the FSCC was concerned, to the workings of the corporation's latest brainchild, the "Cotton Stamp Plan."

At Memphis, Tenn., while cotton brokers, processors and growers joined in the pageantry of the Memphis Cotton Carnival, the first test of the cotton stamp plan was "exceeding expectations." In the first week of operation (May 7-15), 4,200 relief clients in Memphis and Shelby county purchased \$16,743 worth of green "cotton order" stamps and were given free a similar valuation in brown surplus stamps.

The result was a lively buying spree on cotton products in stores and shops, which offset to a degree the business lethargy in the wake of the homage to King Cotton. Merchants and tradesmen, pleased and optimistic, reported that the bulk of the stamps went for real necessity items such as work shirts, pillow cases and sheets, children's dresses and clothes.

Apparently encouraged by the showing in Memphis, the FSCC announced this week that Springfield, Mass., had been selected as the second city in which the cotton stamp plan will be tried.

The plan rigidly limits the exchange of stamps to the purchase of commodities

Stamp Plan Grows

TO DATE, 83 areas have been designated for the food stamp plan, which is actually operating in 71 areas (cities or counties). By fall, the plan will be extended to a total between 125 and 150 areas, depending on their size. About 1,000 areas have asked for the plan.

Total value of the free blue stamps issued up to May 1 was \$10,400,000 and the total for the fiscal year ending June 30 will be between \$15,000,000 and \$20,000,000. The blue stamps, redeemable only in products designated by the Federal Surplus Commodities Corp., represent the measure of success achieved in cutting into the farm surplus.

Areas now in operation are serving 1,300,000 individuals in relief families. The blue stamps were being distributed at the rate of \$2,500,000 a month in March and April, but the figure will go to \$3,000,000 or better in May and June. When the goal of 125 to 150 areas is reached this fall, blue stamp distribution will have climbed to between \$7,000,000 and \$9,000,000 a month. The total indicated for the next fiscal year is around \$100,000,000, with about 4,000,000 persons being served.

Secretary of Agriculture Wallace reports that the stamp plan will be of some help in meeting the effects of Europe's war on agriculture, but that full national coverage could not be established efficiently in less than two more years, even if the money were available.

and products "made entirely of cotton that has been entirely grown, processed, and manufactured in the United States." That clause caused some confusion last week, because cotton fabrics are often part rayon or contain other substitute materials which can be spotted only by the expert buyer.

So far, the FSCC remains firm in its demand that cotton be just that, and American-grown and processed. Already textile manufacturers are being asked by Memphis merchants to stamp fabrics to show cotton content—a move for which King Cotton has clamored for years and which thus far has been only moderately advanced by the Federal Trade Commission rules requiring fiber identification on labels.

To be eligible for the plan, a relief family must be properly certified. While the plan is voluntary, a family receiving benefits must buy a certain amount of the green stamps, according to the size of the family, every three months. That



The exacting requirements of steel mill service are met by this 25-ton Whiting crane

Steel Mills get UNFAILING PERFORMANCE in these Quiet-Running Cranes

Week in and week out, twenty-four hours a day, steel mill cranes are kept in constant use. Such grueling crane service calls for unflinching reliability. That's why steel mills prefer Whiting overhead traveling cranes.

Whiting cranes have many exclusive features that reduce friction and wear. For example, they have precision-cut herringbone gears that operate smoothly and efficiently—outlasting ordinary spur gears 2 to 1. Their heavy-duty roller bearings not only reduce friction and provide quicker starting, but also

keep gears in permanent alignment. Whiting cranes have other advantages, too—flexible couplings to transmit motor power without binding, tapered-tread bridge wheels to keep the crane square on the runway, and rotating axle bearings to keep wheels running free.

Investigate the Whiting crane. Available in capacities from one to 400 tons. Whiting Corporation, 15661 Lathrop Ave., Harvey, Ill. In Canada: Whiting Corp. (Canada), Ltd., Toronto. Makers of quality cranes for over fifty years.

Send for New Booklet—"How to Write a Traveling Crane Specification"

It pays to get a quotation on

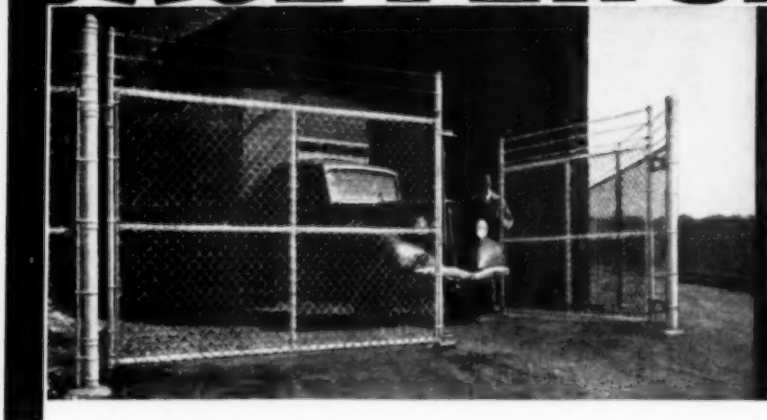
WHITING



OVERHEAD TRAVELING CRANES

THE LONG-LIFE, HERRINGBONE-GEARED, ROLLER-BEARING CRANES

PAGE FENCE



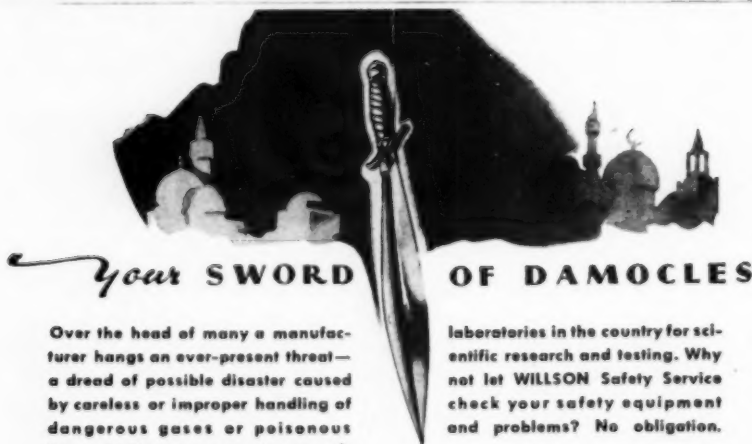
KEEPS THAT HEALTHY COMPLEXION!

● When you enclose your property with a Page Fence you get double protection. Your buildings and contents are safeguarded—day and night—by a barrier against many hazards. The fence fabric, posts and all fittings are protected by extra heavy, uniformly thick galvanizing. And the fence is your protection against careless and malicious trespassers. Page

"P-12" galvanizing prevents destructive attacks by atmospheric conditions. Throughout a long lifetime, Page Fence keeps its "healthy complexion"—gives management peace of mind. Write to PAGE FENCE ASSOCIATION, Bridgeport, Conn., Atlanta, Chicago, New York, Pittsburgh or San Francisco for copy of "Fence Facts" and name of nearby distributor.

A PRODUCT OF PAGE STEEL & WIRE DIVISION—AMERICAN CHAIN & CABLE COMPANY, INC.

America's First Wire Fence—Since 1883



Over the head of many a manufacturer hangs an ever-present threat—a dread of possible disaster caused by careless or improper handling of dangerous gases or poisonous fumes. In these emergencies, properly designed gas masks may mean the difference between life and death. Your obligation is to be sure you have provided dependable protection.

WILLSON has been a leader for years in the designing and developing of respirator equipment and maintains one of the best equipped

laboratories in the country for scientific research and testing. Why not let WILLSON Safety Service check your safety equipment and problems? No obligation.

The Willson Gas Mask shown in illustration is only one of many different types of Willson Respiratory devices approved by the U.S. Bureau of Mines for industrial use.



RESPIRATORS • HELMETS • GOGGLES • GAS MASKS



WILLSON
DOUBLE
PRODUCTS INCORPORATED
READING, PA. U.S.A. (Established 1875)

amount per quarter ranges for WPA families from not less than \$2 nor more than \$3 for one- and two-person families to a minimum of \$4 and maximum of \$6 for families of five persons or more. The stamps, both green and brown, are in denominations of 25¢, and are bound in books, similar to books of postage stamps, that contain from \$2 to \$12 worth of green stamps and an equal amount of free brown ones.

Families receiving grants under the Federal Social Security program are given their brown surplus stamps without the necessity of purchasing the green ones.

How Stamps Are Disposed Of

On the merchant's side, the plan is simple. He sells cotton goods in exchange for either the green or brown stamps, gives credit slips in lieu of change. The retailer pastes the stamps on a card which holds \$10 worth. He may deposit that card with his bank, or give it to his wholesaler on account, or he may turn it in at the FSCC and wait three days for a check to come from the government disbursing office at St. Louis.

Extension of the plan logically will follow the successful trail of the Food Stamp Plan, now in effect in about 100 cities. Springfield, Mass., in the heart of the textile manufacturing trade, is next on the test list.

Public Power Loses

Portland and five out of six rural areas defeat civic plan to use Bonneville power.

IN A BITTER PRIMARY election last week, Portland, Ore., turned thumbs down (by a vote of 2½ to 1) on a proposal to form a People's Utility District (PUD) and ultimately buy \$50,000,000 of properties owned by Northwestern Electric Co., and Portland General Electric Co.

Out of six rural districts also voting May 17 on similar proposals only one (Nehalem Basin, west of Portland) went for public ownership of power.

The results acted like a shot in the arm for the somewhat-weary defenders of private ownership in the Northwest, who have had a battle on their hands ever since the federal government's giant power project at Bonneville on the Columbia River was started.

Reverberating this week in Portland and Washington, D. C., were charges of Hatch Act violations which have been levelled at the Bonneville Administration and at Senator George W. Norris, of Nebraska, by the Portland Citizen's Committee, an organization of 2,000 Portlanders.

The P.C.C., which opened its books last week to prove it didn't get a cent of private utility money, claims that: (1) More than 80,000 pamphlets containing pro-PUD arguments were printed and

distributed by the Bonneville Administration in the Portland area prior to the election; (2) Bonneville employees actively campaigned for PUD; (3) Senator Norris, from Washington, sent into the area some 40,000 postage-free franked envelopes containing pro-PUD material from the Congressional Record.

The PUD Setup

Soon after construction of Bonneville began some eight years ago, legislatures in Washington and Oregon passed laws permitting creation of People's Utility Districts, by a majority vote of the persons in areas or communities concerned, for the purpose of buying and distributing Bonneville energy.

The PUD groups, once voted, may establish an elective board of officials to administer the district's affairs, set consumer rates, and (in Washington) levy taxes and issue revenue bonds without limitation and without submission to voters. Also they may acquire by condemnation private power companies operating within their boundaries. To date, some 25 districts have been set up in Washington, four in Oregon. Only six have reached the stage of actual power distribution in Washington, none in Oregon.

Hot spot in Washington's PUD situation involves attempts of 10 districts in the area served by the Puget Sound Power & Light Co. to acquire the utilities' properties. While Frank McLaughlin, president, insists that his concern will consider "any bona fide proposition of merit" officials (commissioners) of the districts are split into two factions and are quarreling over procedure.

Four condemnation suits are in the courts against the Washington Water Power Co., operating in the Inland Empire area around Spokane.

Sobered by Decision

First PUD suit ever to reach a decision was in the case of the Washington Gas & Electric Co. Late last month a jury in federal district court, Tacoma, after three days' deliberation, told the Cowlitz County PUD it must pay \$6,011,556 for the utility's properties. This was a blow to district contentions that the price should be \$3,850,000 and has had a sobering effect on other PUD's involved in, or contemplating, similar proceedings.

With only six relatively small PUD operations actually distributing power in Washington (and these only since January), close to \$1,000,000 in taxes have been levied by PUD groups in the state since 1937.

Meanwhile, the major customer of Bonneville continues to be the Portland General Electric Co., a private utility, which is under temporary contract to take something less than 25% of the project's present output (BW—Dec 9, 1939, p 45).

7 WAYS FOR *dust* TO STEAL YOUR PROFITS\$

- 1 **LOSS OF MATERIAL**—Are you salvaging the maximum of intrinsically valuable dust?
- 2 **MACHINERY REPAIRS**—Is dust abrasion running up your repair bills?
- 3 **SHUT-DOWNS**—Is dust damage likely to cause expensive stoppage?
- 4 **EXTRA LIGHTING**—Are you burning extra wattage because of dust-lowered visibility?
- 5 **SUB-STANDARD PRODUCTS**—Is dust impairing the work of your precision machines?
- 6 **REDUCED EFFICIENCY**—Is dust slowing up your workers?
- 7 **EXTRA CLEAN UP**—Are you paying too much for cleaning up dust throughout your plant?

Here are three booklets that tell what you should know about dust in industry and the efficient methods for its control and collection:

- ★ Fractional vs. Overall Efficiency Guarantees
- ★ Industrial Dust Collection
- ★ FLY ASH: Its Correction

Any one or all of these informative brochures will be sent upon request, without cost or obligation.

buell
DUST COLLECTORS

60 WALL TOWER, NEW YORK
BUELL ENGINEERING COMPANY, INC.

Wherever located, you will be quickly served through sales offices of either BUELL ENGINEERING CO. or B. F. STURTEVANT CO.

**MEMO
TO EXECUTIVES:**
Save the Most Time —
Slash Handling Costs
— With the Right Type
of Conveying Equip-
ment —



PROFIT BY STANDARD'S EXPERIENCE WHEN YOU PLAN YOUR CONVEYING METHODS

The conveying equipment saves time and handling costs — but the best conveyors for the particular problems in your plant are those which will cut handling costs the MOST! For every package handling problem, Standard Conveyor considers it part of the job to design and build the equipment that will save you the most money.

You profit by Standard's 34-year experience record in conveyor engineering — save time and money in getting the right kind of an installation to hold handling costs to a minimum.

On any kind and size of conveying job — large and small — it pays to get full facts from a Standard Conveyor Engineer — first!

Send for "Conveyors by Standard" — an informative booklet for every executive concerned with production and material handling.

STANDARD CONVEYOR COMPANY

General Offices: North St. Paul, Minn.
Engineering and Sales Offices in Principal Cities



PRODUCTION

PRODUCTS • PLANT • PROCESSES

Conductive Rubber

Dunlop introduces substance which eliminates danger spots by "absorbing" static electricity.

EVER SINCE RUBBER began its beneficent reign as a major material in modern life, three of its many characteristics have been uppermost in the public mind—flexibility, waterproofness, and electrical non-conductivity or "insulation." Now, however, the public mind must modify its thinking, for "electrically conductive rubber" is being put on a commercial basis by the Dunlop Tire & Rubber Co., of Buffalo, N. Y.

Just why Dunlop should want to make rubber that conducts electricity—when non-conductivity has been one of rubber's assumed virtues—may not be immediately apparent. However, two weeks ago, for example, a young woman was killed during a comparatively simple medical operation, because the surgeon only scuffed his feet on the non-conductive rubber operating room floor. Static electricity—generated according to the same principle by which high school physics teachers demonstrate it to their pupils by rubbing a hard-rubber fountain pen against their coat sleeves—ignited the anesthetic in her lungs. Thus, Dunlop executives believe that one of the first applications of conductive rubber will be in hospital floorings.

Other potential uses will be in countless places where current leakages or static charges due to non-conductive rubber require grounding to prevent fires and explosions—as in gasoline trucks. Use of the new substance will also eliminate the danger and discomfort of shocks, will improve radio reception in cars, and will take the static electricity out of machine tool belting, gasoline hoses, automobile engine mountings, and all types of airplanes, trucks, buses, and passenger cars.

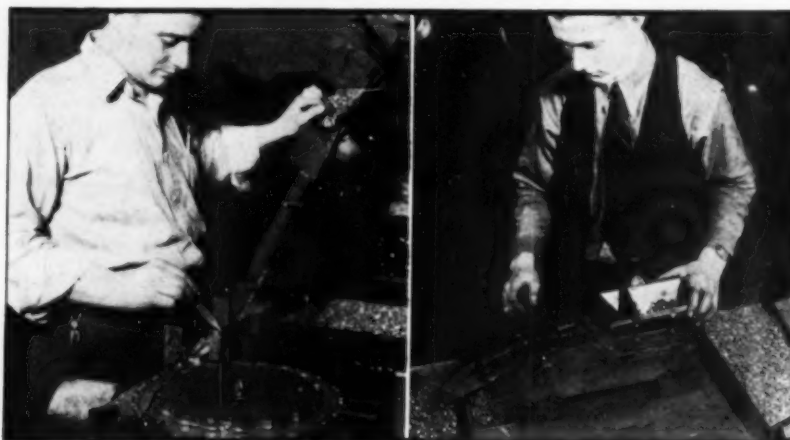
Normal Qualities Preserved

Dunlop's development is not entirely new, for rubber with some degree of conductivity has been made in the past by heavily compounding it with various ingredients like powdered charcoal, graphite, and lamp black. In practically every instance, however, conducting power has been gained only at the expense of mechanical properties, and the resulting rubbers having been hard and subject to cracking. Electrical properties have at their best been variable.

Within the last few years, the new technique has been gradually developed in Dunlop laboratories so that the production of conductive rubber does not sacrifice normal properties of flexibility and resistance to cracking and wear.

Rubber with good mechanical properties is available with any required specific resistance between the limits of one ohm and 10^{15} ohms, the latter being the

Martin Mechanizes Rivet Reclamation



Like good tailors who never halt their work to pick up dropped pins, modern aircraft builders leave dropped rivets to the sweeper, for salvage and sorting at the end of the day. But when Glenn L. Martin Co., of Baltimore, found it was costing

\$15,500 annually to sort \$15,500 worth of rivets, its tool makers got busy on two machines which do the same job for \$3,000. One machine (right) separates round-heads from square-heads; the other segregates by length.

approximate resistance of pure rubber. Hardness can be varied from that of ebonite to medium-soft rubber like that found in automotive tires. Within certain limits any degree of conductivity can be associated with any degree of hardness, with one reservation—that very soft rubber cannot be made highly conductive.

Salt Transfers Heat

Molten compound employed in industry. Improved alcohol distilling process reported.

MOLTEN SALT that can be pumped through pipes like water and a new way of distilling the last drop of water out of alcohol were highlighted when the American Institute of Chemical Engineers met in Buffalo last week.

Papers describing these discoveries were: (1) "Molten Salt, a New Heat Transfer Medium for High Temperatures," by Messrs. Kirst and Castner and Dr. Nagle of E. I. du Pont de Nemours & Co.; (2) "Absolute Alcohol, an Economical Method for Its Manufacture," by T. O. Wentworth of Vulcan Copper & Supply Co., and Dr. D. F. Othmer, of Brooklyn Polytechnic Institute.

The first describes a mixture of approximately 40% sodium nitrite, 7% sodium nitrate, and 53% potassium nitrate, which resembles common salt in appearance. When highly heated, it becomes a liquid. Called "HTS," an abbreviation for "heat transfer salt," it can be used at atmospheric pressure in a temperature range of 300 to 1,000 deg. F. hot enough to make steel a dull red. Though the salt was compounded for use in modern petroleum refineries, it is expected to find applications in commercial bakeries, asphalt stills, starch plants, and other industries requiring high temperatures. Heretofore, air has been generally employed as heat transfer medium for high temperatures, but one pipe of molten salt will do the work of 48 air pipes with a big saving in pumping power.

The second paper describes a technique of alcohol distillation which brings the world a step or two nearer to the economic feasibility of alcohol-blended motor fuels. Alcohol for such use must be entirely free from water, but conventional methods of getting rid of the last aqueous drop entail a loss of considerable alcohol. The new method, which is based on the principle of separating water from alcohol by addition of a third liquid—in this case ethyl ether—lowers the boiling point of water below that of alcohol and allows it to be distilled out completely and less expensively.

New Wire-Making Process

THE NEWLY FORMED Sheet-Wire Corp. of Detroit will produce wire, bar and rods

—round, flat, or polygonal—by a process of continuously slitting sheets instead of drawing metal through multiple dies. The company, which is headed by Dean D. Francis, formerly vice-president of National Bronze & Aluminum Co., and president of Wheeler-Schebler Carburetor Co., will not establish its own plant for the time being. Instead, it will use "established production facilities on a co-operative manufacturing plan."

Negotiations are proceeding with steel mills and non-ferrous fabricators. It is understood that the process is expected to effect considerable savings through the avoidance of certain pickling and annealing operations.

P. S.

SIMILAR IN TYPE to underfloor bus engines, but designed to fit in streamlined airplane wings, new 12-cyl., 1,200-hp., liquid-cooled "pancake engines" come from Lycoming Division of Aviation Mfg. Corp. . . . YET TO COME are 42-cyl., 3,600-hp., air-cooled radial engines, rumored to be under test by both Curtiss-Wright and Pratt & Whitney. If true, 42 cylinders will probably be arranged in six rows of seven each—an extension of present 18-cyl., 2-row, 2,000-hp. design. It is useless to ask either radial builder for confirmation; all tests are under government supervision.

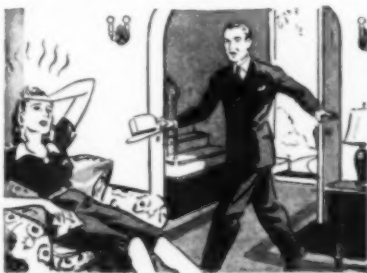
"YOU COULD HEAR THE BLUE PRINTS GENTLY *Frying*"



1 "Hot? That drafting room was an inferno. You could hear the blue prints gently frying!"



2 "Then the Boss crashed through with a big R & M Air Circulator. Man, what a relief!"



3 "I breezed through a double day's work; went home feelin' tops . . . to a house like a furnace—and Mary prostrated."



4 "Fixed that, quick. Got a swell R & M—same brand the Boss picked. And Mary thinks I'm wonderful!"

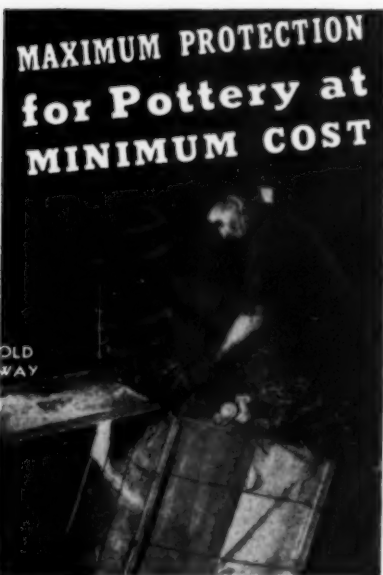
BUSINESS chooses R & M fans for offices, stores, factories—to make breezes in a big way, with utmost efficiency and economy. . . . Choose your home fans the same way. New-type R & M attic fans or portable, in-the-window home coolers refresh the whole house or apartment; exhaust fans sweep out kitchen heat; pedestal fans adorn living rooms; quiet little fellows cheer up bedrooms. And what grand service you'll get, decade after decade, from good fans like these. See your dealer. For exhaust fan, attic fan, or home cooler circular, write Robbins & Myers, Inc., Springfield, Ohio—also makers of Electric Motors, Hoists, Cranes and Moyno Pumps.



R & M DeLuxe 10-Inch Oscillating Fan, \$14.95. Other types, \$3.65 up.

ROBBINS & MYERS
ALL TYPES · ALL SIZES

Fans



SAFE—ECONOMICAL ALL-BOUND WAY

...There may be big advantages for you, too, in All-Bound Boxes

AS a result of extensive tests in a General Box laboratory the new container illustrated above was adopted as standard by one of the largest manufacturers of pottery in the world. The old method of shipping in heavy containers, considered satisfactory for many years, was abandoned. Light weight, remarkably strong. All-Bound Boxes save more than 50% in tare weight—provide adequate protection.

Manufacturers of hundreds of different products have benefited by using one or more of the several types of containers designed and manufactured by General Box. Shipments have been speeded up—thousands of dollars saved.

Why not be sure of maximum protection and minimum shipping costs for your products? The General Box engineer may be able to make important suggestions. Just mail the coupon—there is absolutely no obligation.

GENERAL BOX COMPANY

General Offices:
582 North Dearborn St., Chicago, Ill.
District Offices and Plants: Brooklyn, Cincinnati, Detroit, Kansas City, Louisville, Milwaukee, New Orleans, Sheboygan, East St. Louis, Waukegan. Continental Division: Houston, Dallas

() Have a General Box engineer call.
() Mail complete General Box information:

Name.....

Address.....

City..... State.....

NEW PRODUCTS

Rust-Proof Nails

DEVELOPED for the boat industry by Independent Nail & Packing Co., Bridgewater, Mass., the new Anchorfast Nails exhibit qualities which will make them



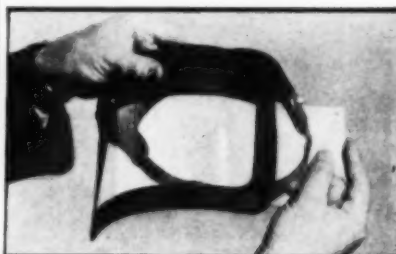
useful in other locations. Since they are made of Monel, they will not rust. Since their shanks are covered with a series of sharp rings, their holding power equals and sometimes exceeds that of screws.

Piston Pipe

NEWEST of the tobacco pipes which combine a briar bowl with an air-cooled aluminum stem is the Clipper Pipe, development of Century Pipe Co., Vance Bldg., Seattle, Wash. To blow off accumulated juices, you give the mouthpiece a quarter turn; to clean the stem more completely, you withdraw the mouthpiece, and an inbuilt stainless steel piston does the rest.

Reglazable Face Shield

IF THE PLASTACELE window in the new B & C Face Shield of Boyer & Campbell Co., 6540 Antoine, Detroit, requires renewing, it may be slid out of the fiber frame and a new one slid in almost in-



stantly. Or it may be replaced with a 24-mesh Monel screen window or a welding glass.

"PVA"

CONTINUING to delve into new chemical combinations derived from coal, water, and air, du Pont researchers are compounding a new class of resin-like polyvinyl alcohols which will be designated as "PVA." Indicated uses run the gamut from oil-proof gloves to cosmetic ingredients, to molded plastics, to sheets and tubes, to adhesives, gaskets, metal-coatings, safety glass, photographic plate

coatings, what-have-you. PVA materials will be manufactured by R. & H. Chemicals Dept., E. I. du Pont de Nemours & Co., Niagara Falls, N. Y.

Four-Way Portable

FLASHLIGHT CELLS replace more expensive "B" batteries in the new Satchell Carlson Model 66 Portable Radio. As developed by Satchell Carlson, Inc., 2233 University Ave., St. Paul, Minn., it may be used: (1) As a portable using batteries; (2) As an auto radio using the car's 6-8 volt current; (3) As a home or office radio using standard 110-v. a.c. current, or (4) With d.c. current. Size is 13x6x5½ in.; weight, 9½ lb.

Swinging Windrower

PRACTICALLY all crop lengths can be handled by the new Multi-Range Swing-



ing Windrower—green crops for hay and silage as well as seed crops. W. Gaterman Mfg. Co., Manitowoc, Wis., produces it in several sizes for horse-drawn and tractor mowers.

Jumbo Plywood

NEWEST DEVELOPMENT of Speedwall Co., 5035 First Ave., S., Seattle, is the Jumbo Speedwall Panel in sizes up to 8x20 ft., making possible room walls without crack or joint. Material is 5/16-in., 3-ply, standard grade, water-resistant, resin-bonded Douglas Fir plywood, with or without a layer of fabric on the surface to be decorated.

Wall Waterproofer

NEITHER THE COLOR nor the texture of concrete and masonry walls is changed when they are waterproofed with a brush coat of Flexseal, a new colorless, transparent, synthetic liquid, compounded by Flexrock Co., 2300 Manning St., Philadelphia.

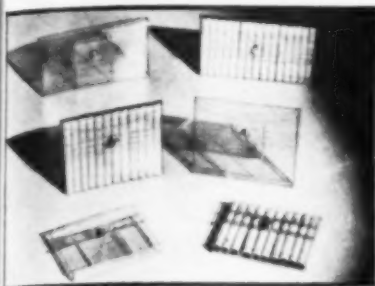
Easy-Reading Scale

SHORT AND TALL MEN can both read weights easily and accurately on the new Fairbanks-Morse Motor Truck Scale, because the number plates on the beam are set at a 45-deg. angle. The manufacturer, Fairbanks, Morse & Co., 600 S.

Michigan Ave., Chicago, provides additional ease in operation by equipping the poises with stainless steel roller bearings.

Vuepak Cases

WHEN FABRICATED for premiums or advertising novelties, the new Vuepak Cigarette Cases



arette Cases carry an advertising message which may be easily read through the front flap. The Box Shop, Inc., 373 Lexington Ave., New Haven, Conn., makes them of rigid, transparent Monsanto Vuepak plastic in three sizes for standard cigarettes or the newer "longies."

Pipe Anticipator

OVER A YEAR AGO one of the big public utilities added to its excavating equipment a radio device which gives audible warning of the presence of buried pipes and cables before they are encountered by power shovels and pushers. Now, known as the WTP Automatic Pipe Anticipator, the device is being manufactured for all comers in the earth-moving field by Wallace & Tiernan Products, Inc., Belleville, N. J.

Motor Hi-Klonic

AFTER AN AUTOMOTIVE engine has been drained, and while it idles gently, the Hi-Klonic Motor Energiser pumps hot, thin oil through the drain opening in the



crankcase and pumps it out again to remove sludge, water, and other foreign matter. Lewis Mfg. Co., 125 W. 35th St., Los Angeles, equips its new device with a General Electric reversible motor and thermostatically controlled Calrod heating unit to hold oil heat at 220 deg. F.

LOOKS LIKE A BIG YEAR AHEAD FOR MANY USERS OF U·S·S STEELS



*First of 130,000,000 impressions telling
U·S·S trade-mark story, hits the consumer
keynote for 1940*

IF you have entertained any doubt as to the effectiveness of U·S·S Quality Symbols on consumer goods, the fact that hundreds of manufacturers are now using millions of these trade-marks should dispel it.

Seldom has a merchandising plan had a sounder or more logical approach. Manufacturers who take pride in the fact that they use U·S·S Steels mark their products so that their customers will know. U·S·S advertisements, like the one shown here, tell the importance of these steels and show how they may be identified. The total national campaign for 1940 will include approximately 130,000,000 advertising impressions. That's a substantial lot of advertising!

We don't know of a product made from steel which wouldn't profit from this plan.

U·S·S Quality Symbols already appear on an amazing variety of goods for home, farm or office. Why not on yours?

Ask us about it. The requirements couldn't be simpler. This free merchandising aid is offered to any approved user of U·S·S Steels. We suggest you write for the whole story.



THIS IS A TYPICAL U·S·S LABEL. Others are provided for special steels such as Copper Steel, Stainless, Vitre-Namel, Cor-Ten, Premier Spring Wire, etc. The mark can be made to suit your product.

AMERICAN STEEL & WIRE COMPANY, Cleveland, Chicago and New York
CARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh and Chicago
COLUMBIA STEEL COMPANY, San Francisco
TENNESSEE COAL, IRON & RAILROAD COMPANY, Birmingham
Scully Steel Products Company, Chicago, Warehouse Distributors
United States Steel Export Company, New York

UNITED STATES STEEL



LABOR AND MANAGEMENT

G.M. Pact Shaping Up

Give-and-take evident in C.I.O. negotiations; government orders due to spur settlement.

REPORTS of "slow but steady" progress come from the mahogany table around which representatives of General Motors and C.I.O.'s United Automobile Workers' Union are negotiating an agreement to cover 53 G.M. plants. In the cards seem to be: a pay boost for G.M. workers, a revamped and streamlined grievance-settling procedure, a stricter seniority plan, and maybe paid vacations. Compromises are indicated on the union's demands for a voice in production standards, and a rigid shop steward system, but an annual wage scheme seems to be strictly no dice.

Anxious to Do Speedy Job

The spirit of give-and-take which has characterized the conference points to a peaceful settlement, and there is no disposition on either side to air its position in the press or resort to strike or lock-out. There is no evidence that the union is protracting negotiations in order to enhance its bargaining position when the company begins manufacture of new models. On the contrary, Walter Reuther, U.A.W.'s chief negotiator with G.M., is anxious to demonstrate his ability to deliver a signed contract in less time than it took his intramural union rival, Richard Frankenstein, to deliver a contract with Chrysler.

The union plan is to consummate an agreement before mid-July so that the U.A.W. convention, scheduled to meet in St. Louis at that time, will have something to cheer about. Cheering now in union headquarters is due to the fact 271,436 auto workers paid dues in April.

A.F.L. Is an Irritant

Slowness of negotiations results from the formidable problem faced by the conferees. For the first time, union and management are attempting to work out company-wide procedures for grievance handling. Formerly, plant managers were supreme authorities on such matters. One irksome time-consumer is the A.F.L. demand that company negotiators spend one hour with A.F.L. representatives for every hour spent with the C.I.O. This is in spite of the fact that the A.F.L. is empowered to bargain for workers in five G.M. plants as contrasted with the C.I.O.'s certification in 53.

A new factor expected to accelerate the negotiations is the government preparedness program. Detroit is anxious to put its automotive house in order before the big rush to fill army orders gets under way.



Redcaps Fight Fees

Union wants minimum wage, all tips, no piece-rate. New York stations adopt 10¢ plan on June 1.

ON JUNE 1 the New York passenger stations expect to put their redcaps on wages and the public on a flat charge of 10¢ per piece of luggage carried—a plan that has been spreading like a rash because of a ruling under the Fair Labor Standards Act (BW—Mar30'40,p34). Thus, a cycle is completed, for the first redcaps in Grand Central Station, 50 years ago, were paid by the railroad, which fruitlessly urged the public not to tip. Since then, the redcap's income became dependent on tips alone, and his legal status that of a privileged trespasser on railroad property, rather than a railroad employee. In 1938, the Interstate Commerce Commission restored him to employee status, and ruled that he must be paid a minimum wage of 30¢ an hour.

The redcaps' union, the United Transport Service Employees of America, places the average daily earnings of its members in one Chicago station, for example, at \$3.10 while tips were the sole source of income. But the new wage plans are all based on 30¢ an hour, \$2.40 per day, and the boys claim now to average 30¢ a day in tips. In every station using dime tags for hand luggage, redcaps say few travelers now tip and the number of tippers shrinks every week.

Aim: Minimum Wage Plus Tips

What the union wants eventually is elimination of the checking charge, with the man getting a minimum wage, plus all tips.

Nobody loves the rate plan, although the railroads and the traveling public are getting accustomed to it. But as the new system approaches in any terminal, the redcaps' union is in there fighting for a more liberal concept of a living wage. Privately, the boys say the roads are ganging up on them to make them holler "uncle" and beg to go back to tip-money.

All of the plans look alike to the passenger, who is charged 10¢ per piece. But the roads and the redcaps recognize three different plans. The Cincinnati plan (February 1) is used almost everywhere except in the St. Louis Union Station and in all Chicago & North Western stations. It is anathema to the redcaps, because the employer takes all redcap check revenues (but, of course, lets them pocket any tips they may get above the 10¢ rate). Latest recruit to this plan is Greyhound Bus Lines.

The other two plans are more liberal to the redcap. The St. Louis plan (April 1) deducts 30 cents per man per day from total revenues to cover supervision, accounting, and supplies, and

then splits the balance above wage costs 50-50 between employer and the redcaps. Thereby, each man gets a modest bonus. The North Western plan (May 5) deducts nothing except salaries, twice a month divides up the entire kitty among the boys. There has been no payoff as yet on this bonus, but the redcaps' own statistics indicate that it should bring their daily earnings up to \$4, exclusive of tips. The Illinois Central at Chicago (Cincinnati plan) took in 13% more in April, than it paid out in redcap wages, and figures that the differential barely covered extra costs resulting from the dime-a-bag system.

Asks Double Liability

Reasons for the epidemic of redcap plans are the 40-odd lawsuits brought in federal courts by the union against every employer of redcaps where it has a local. Each suit claims double wage liability since October, 1938, to the day when the redcaps were put on 30¢ hourly wages. Only locality free from the suits is the West Coast, where redcaps have long had salaries and where dime checking has not yet appeared.

Railroads and redcaps declare that fewer people are having their bags toted at a dime per, than used to when they greased the totter's palm according to their own consciences. Best explanation: Affixing checks, collecting cash, and making change slow up the service. Illinois Central officers say that when Cincinnati was the sole dime-checker, they could spot an incoming crowd off a Cincinnati train by the small number of redcaps with bags.

Practically every station has reported a few kicks during the first week of fees, except the North Western which puts a bonus on gang work. Most of the troubles were off in a few days, but one Ida M. Stopher is protesting the Cincinnati charge before the I.C.C. The redcaps' union swears it had no hand in her original action, but is enthusiastically backing her up.

Time Off for War

SIGN OF THE TIMES is the "war service" provision written into the recently negotiated agreement between the C.I.O.'s United Automobile Workers and the Allis Chalmers Manufacturing Co. of Milwaukee. Under the new clause over 6,000 workers are assured of job protection in the event they serve in a military capacity during U. S. war involvement.

The contract provides that time spent in military service will be considered a leave of absence and that when such service is terminated the worker will return to his job without loss of seniority rights. There is considerable sentiment among labor officials to make such a provision standard in all union-management contracts. Employers do not seem reluctant to accept it.

IT PAYS TO FLY



88%

of all transports ordered by U. S. airlines for delivery during 1940 are Douglas DC-3s.

For 20 years Douglas' growth has continued apace independent of general world conditions. Fruit of this growth is the undisputed leadership of Douglas in the air transport field.



DOUGLAS

Our advertising kit

Our advertising kit has three tools: business judgment, skill in our craft, and a painstaking habit best described in the maxim, "Not how much, but how well."

Just three tools, but like a good journeyman's, they are kept well sharpened!

**Newell-Emmett
COMPANY**

Advertising Counsel

40 EAST 34th ST., NEW YORK

AS USUAL...TO AUSTRALIA-NEW ZEALAND



● Enjoy the comfortable luxury of Canadian Australasian liners. See Hawaii and Fiji en route. Regular sailings from Vancouver or connect from California ports at Honolulu. Approved for United States citizens. Your own travel agent or Canadian Pacific: 41 offices in U.S. and Canada.

*Canadian
Australasian*

TRAFFIC AGENTS—CANADIAN PACIFIC

American Helicopter Flies Straight Up, Forward, and Back



Refusing to be outdone by German helicopter designers, Igor Sikorsky, eminent airplane designer, flew his own experimental helicopter this week at Bridgeport, Conn. Ascending to a height of 20 ft., he hovered, turned, flew backward and forward.

Business elements consist of a 28-ft., 3-bladed horizontal airscrew, two smaller horizontal airscrews, and a vertical one—all powered by one small engine. Big airscrew furnishes both vertical and horizontal motion; the smaller ones, control.

TRANSPORTATION

Truck Merger a Fact

New organization spans seaboard and reaches into Midwest; more firms expected to join.

MAJOR DETAILS in the East's big trucking merger (BW—Mar 23 '40, p. 37) had been completed this week. From months of negotiation there emerges a consolidation which handles about \$40,000,000 of business annually, earned a net profit after taxes in 1939 approximating \$3,000,000, operates a fleet of 14,000 trucks, and employs some 30,000 people.

Formal announcement that a merger had been consummated came after a dozen companies signed up. The sponsors expect that several others will join in the near future, but even without additional components, the organization operates the length of the Atlantic seaboard and into several sections of the Central West.

The new company heads up in New York where the president, B. M. Seymour, has offices. Mr. Seymour at one time was New York manager for the General Motors truck division, and he became a vice-president of Terminal Cab Co. when this organization was sold by G. M.

Companies joining the combine include Arrow Carrier, Paterson, N. J.; Barnwell Brothers, Burlington, N. C.; Branch Transportation, New York; Brooks Transportation, Richmond; Consoli-

dated Motor Lines of New England; Horton Motor Lines, Charlotte, N. C.; Kirby & Kirby, Trenton, N. J.; Motor Haulage, New York; Mundy Motor Lines, Roanoke, Va.; Super Service Co., Nashville; Transportation, Inc., Atlanta; and York Motor Express, York, Pa. These companies, according to the plan, will continue to function under their own identities. Operating personnel will be changed as little as possible. The organizers have encouraged the men who built the companies to retain their interest in the business by exchanging at least part of their holdings for shares in the new company.

Plan to Sell Securities

Present indications are that the capitalization of the consolidation will be somewhere between \$20,000,000 and \$25,000,000. Kuhn, Loeb & Co., acting as financial advisers to the organizers and as underwriters to offer shares to the public, have recommended that the capital be divided approximately equally between common and preferred stock.

The expectation is that the company will undertake to sell securities to raise working capital in the amount of about \$1,500,000. Other preferred and common shares will be sold publicly—and the financing is likely to total between \$12,000,000 and \$15,000,000—to pay owners of the companies for holdings not exchanged for stock in the consolidation.

MARKETING

ADVERTISING · MERCHANDISING · SELLING

Nylon Goes to Town

Reports from stores all over the country indicate that supply, not demand, is problem.

TEN DAYS after the May 15 debut of nylon stockings for women (BW—May 11 '40, p. 38), it seems safe to say that they were an unqualified success. Big stores in New York, Chicago, San Francisco, and points north and south, report crowds at hosiery departments reminiscent of the Christmas rush. In big cities, at least, the only curb on sales has been stocks on hand. Surprises in the early rush have been a large proportion of men buyers and a preference for the most expensive numbers.

Best estimates are that not more than 100,000 dozen pairs of nylon hose were ready for retail sale last Wednesday (sales of full-fashioned silk stockings average 137,000 dozen pairs per week-day). That many have probably been sold by now, for the odd lots left in retail stores are estimated as equal to the small shipments that a few manufacturers have been able to make on a continuing basis in the last week. Most manufacturers have had to turn down long distance telephone calls and wires for reorders, and will be able to make no additional shipments until the first of the month.

The early sales of nylon hose have been accomplished with a minimum of advertising. In most cities, the stores got together and agreed on limitations to the size and number of ads. Few of the stores used even the agreed number of ads, for it quickly became apparent that supply was away behind demand, any-

way. Usual practice has been to limit sales to two pairs per customer, and most stores haven't allowed employees to buy for their own needs.

Launching of the new hosiery was enlivened in New York by a brief price war on unbranded nylons which carried the price down to 97¢ for the 45-gauge, and to \$1.16 for the 51-gauge. Macy's, Bloomingdale's, and Gimbel's all made price adjustments during the first day of sale, but after a few hours the stores returned to their opening quotations of \$1.07 and \$1.26 for the unbranded styles. No price wars were reported outside New York, and throughout the country the national brands sold at the same prices—\$1.16, \$1.25, and \$1.35, depending on weight.

Silk Sales Come Through

Although it's freely predicted that nylon will eventually cut big chunks in silk's market, it doesn't seem to have hurt silk sales seriously so far. Lord & Taylor, in New York, sold out its original allotment of 300 dozen nylons in the first four days, but at the same time increased sales of silk stockings over a year ago. Bloomingdale's, another big New York store, found that silk sales were hurt while the demand for nylons ran to three or four times the ordinary stocking volume.

In Chicago, Marshall Field had about 80 girls selling hose during the big rush on the opening day, and apparently about 75% of the sales were of the new product. Only broken sizes remained in stock at the end of the first day, and since then the demand for silk has come back strong. Goldblatt's, in Chicago, virtually sold out its nylon allotment in the first

four days, but at the same time had a 22% increase in silk sales. One large West Coast store sold 550 dozen pairs of nylons in the first four days but, along with other West Coast stores, found that silk sales were keeping pace.

Merchants generally are disposed to wait before judging the relative importance of nylons. Women are buying them experimentally, and there's no telling the real demand until the next time around. Anyway, for a long time to come, supply and not demand will be the problem.

How to Sell Clothes

Goodall Co. gets lowdown on men's summer apparel trade in "laboratory" at Miami Beach.

LAST WEEK the Goodall Co., manufacturer of Palm Beach suits, promoted its name to the country's three million golf addicts—who form a big segment of the company's market—by sponsoring for the third year the Goodall round-robin tournament for the 15 top professional golfers. Spectacular as such promotion may be, Goodall has been quietly carrying on another campaign that promises direct sales productivity; the company is giving retailers of men's clothing new ideas for sharpening their sales tools, ideas that grew out of a retail "laboratory" that Goodall operated last winter season in Miami Beach, Fla.

Goodall, like other manufacturers, knows that the surface of the summer apparel business for men has scarcely been scratched. The average American male spends an estimated 40¢ a year on "lighter weight living"; no more than two men in five ever wear a genuine summer suit, a porous weave shirt, light weight shoes, or a cool hat. Generally increased advertising has helped sales, but not as spectacularly as manufacturers would like. Enterprising Goodall opened its store in Miami Beach in December, 1939, to attack the problem from the retail end. Sole object was experimentation; profits were without honor.

Choosing the Setting

Goodall spent something like \$60,000 on the retail "lab." On the theory that nothing sells like dramatic display, major attention was given, in planning the store, to both window and interior settings. Windows were treated like theater sets, each telling a complete story. And they were made without backdrops, so that rows of merchandise hung in recessed panels in the store's curving back wall were visible from the street.

Most interesting discoveries in operating the store had to do with customer reactions to various sales approaches. It was found, for instance, that when salesmen addressed customers with some time-honored cliché, such as "Can I help you?" 7% sales resulted. When sales-



This isn't Christmas in a department store—it's nylon.

Acme

men tried a system of leaving the customer alone until he asked for help, 12% sales resulted. And when salesmen greeted customers with specific comments about merchandise, such as "This will be 1940's most popular tan," sales moved up to 25%.

Exploiting an Old Appeal

But far and away the most effective approach was to have each customer greeted by a pretty girl receptionist, who introduced him to a salesman. Usually, the customer supplied his own name, and customer and salesman were able to start off on a personal basis—with 56% sales resulting.

Goodall's success in getting multiple sales was equally noteworthy, indicates that the fitting soon can prove to be a supplementary sales point of great importance.

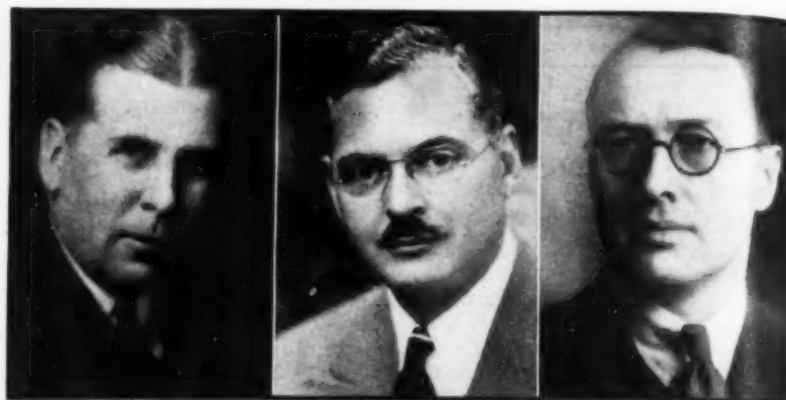
Goodall also found that customers were prone to imitate. When salesmen wore white suits, white suits were the big sellers; when salesmen wore mixed ensembles, they had their biggest day.

Advertisers Rebel

A.N.A. deplures, asks newspaper publishers to discourage, "special edition" solicitation.

EVERY year, advertising in special editions of newspapers is a topic of discussion at the meetings of the Association of National Advertisers. Last week's meeting of the A.N.A., at the Westchester Country Club in suburban New York, was no exception. Only difference was that for the first time the A.N.A. went on record as "deploring" special editions—or irregular publications, such as those issued by trade associations and political parties, as well as "commemorative" issues of newspapers.

Nobody knows the number of special editions that advertisers are asked to



Atherton W. Hobler (center), president of Benton & Bowles, Inc., was elected chairman of the board of the American Association of Advertising Agencies at the association's annual meeting last week in New York. He succeeds A. L. Billingsley, president of Fuller & Smith & Ross, Inc. Guy C. Smith (left), executive vice-president of Brooke, Smith & French,

Inc., was elected vice-president; and David M. Botsford (right), president of Botsford, Constantine & Gardner, secretary. E. deWitt Hill, vice-president of McCann-Erickson, Inc., was re-elected treasurer. John Benson, the association's salaried president, was re-elected for a four-year term, and F. R. Gamble will continue as executive secretary.

support, but the A.N.A. meeting's 200 delegates—representing the buyers of perhaps \$400,000,000 in advertising—were told that the problem is growing. Delegates reported that newspapers, particularly in smaller cities, are increasingly working on wholesalers and dealers to get them, in turn, to put pressure on manufacturers to come into special issues that swell lineage figures.

The association will ask publishers to cooperate "in helping conserve appropriations for legitimate and helpful campaigns which will prove of greater benefit in the long run alike to manufacturers and publishers."

What's in a Word?

Definitions—and conflicting definitions—provided by F&DA and FTC worry package drug men.

HOW CAN ONE OBEY a federal law, like either the new food and drug act or the Federal Trade Commission advertising control law, when government officials charged with enforcement of that law have conflicting views about its meaning and intent?

This is the dilemma, as defined by Dr. Frederick J. Cullen, executive vice-president of the Proprietary Association, which confronts the packaged medicine industry. Speaking at the association's 58th annual convention, Dr. Cullen pointed out that there are as yet no court decisions to guide manufacturers, because the laws have been in effect only a short time, and that requests for interpretation of either law frequently encountered a variety of divergent opinions within the administrative agency.

The dilemma was further increased, Dr. Cullen contended, because the agencies did not interpret advertising and labeling phrases in the light of their meaning to the average consumer but "ascribe to them a meaning which they only infer because they are brought into daily contact with medical or legal phraseology." As an example he cited the use of the word "vegetable" to describe a laxative product, containing only vegetable material and no animal or mineral matter. The Food & Drug Administra-

**FOR SALE BY THE CITY
OF BRIDGEPORT, CONN.**

Sealed bids will be received at the office of the City Clerk, City Hall, Bridgeport, Conn., to June 10th, at 11 A.M., D.S.T., for the following listed properties. Bids shall be in sealed envelopes plainly marked "Property Bids." The City Hall Committee reserves the right to accept or reject any or all bids. For further information apply.

FRED SCHWARZKOPF
Secretary, City Hall Committee
Bridgeport, Conn.

FACTORY BUILDING

Four story and basement. Heavy mill construction building, brick walls, slate roof 45x100 feet. Adjoining two story building 45x61 feet. Boiler house 28x36 feet with 70 foot brick chimney. Lot 132 feet front, 112 feet deep. On Housatonic Avenue between Lumber Street and East Washington Avenue. Light Industrial zone.

tion contends that use of the word "vegetable" conveys to the consumer the idea that he is getting an ordinary variety of garden vegetables. Thus, he argued, the bureau doesn't give the consumer credit for realizing that he is receiving a vegetable drug and not an edible vegetable.

Again, the word "relief" or its verbal counterpart has caused considerable trouble. The Federal Trade Commission doesn't like the word, argues that it implies curative properties and not just relief from pain which is all that drug men feel it suggests.

The proprietary medicine industry has reached the point where it can cooperate with independent university scientists. It was announced that the association has established a fellowship for the study of drugs at George Washington University and hopes to create others. Also significant was the fact that Dr. Howard W. Haggard of Yale's Applied Physiology Laboratory, addressed the convention.

Cosmetic "Weapon"

Industry banks on science to support selling claims against government and consumer attacks.

EMPHASIS on scientific investigation and background is the cosmetic industry's answer to the critical attitude of government enforcement agencies, and the hostility of professional consumer groups

For Leaning Wheels



B. F. Goodrich has developed a new tire for use on road-grading machines—which operate in ditches, and on inclines and embankments, as well as flat surfaces—known as a "leaning wheel" tire. These graders have a special type axle which permits the wheels to lean over on either side to provide stability in grading operations. The new tires will ride naturally at any angle without undue wear or strain.

PAIRED WITH THE *Leaders* FOR STEAM ECONOMY

SCOTTISSUE TOWELS

by

SCOTT PAPER
COMPANY

Popular
Leader in
Paper Products



Steam Source

by

COMBUSTION
ENGINEERING

Setting the Pace
In Steam Generation

In homes and business places throughout America, "Mr. Thirsty Fibre" is now a familiar figure. By backing quality products with foresighted promotion, the Scott Paper Company has come to be recognized as a leader in developing new and wider utilization of paper products.

And as is so often the case, such foresighted leadership shows up as well in the choice of that vital production facility—the steam generating plant. For the kind of management that sets modern standards is the first to demand them when they buy.

Newest steam source at the Chester, Pa., plant of Scott Paper Company is a COMBUSTION ENGINEERING Type VU Steam Generator. Designed for 650 lb per sq in pressure, 750° F total temperature, with a capacity of 125,000 lb of steam per hr, it, too, sets the pace as a low-cost source of steam.

For just as Scott Paper leads in its own field, so COMBUSTION ENGINEERING moves continually to higher standards of efficiency in steam generation. Whatever your own steam demands, you too will find C-E ready to plan an installation to your exact requirements—one that reflects the same "leadership" standards in design, construction and performance.

COMBUSTION ENGINEERING

200 Madison Avenue, New York, N.Y.



C-E PRODUCTS INCLUDE ALL TYPES OF BOILERS, FURNACES, PULVERIZED FUEL SYSTEMS AND STOKERS, ALSO SUPERHEATERS, ECONOMIZERS AND AIR HEATERS.

A-417

toward current claims for cosmetic products. The new trend toward research to support advertising and label claims was stressed in speeches before the fifth annual Toilet Goods Association convention in New York, May 14-16.

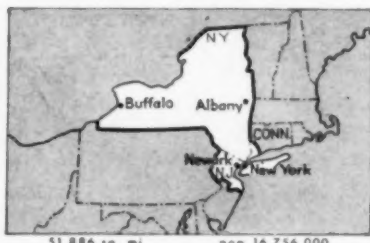
Past scientific work in cosmetics—a lusty, but infant, industry—has been primarily directed toward development

of newer and more salable products. The bigger firms have had able research staffs for a number of years, but results always have been considered as trade secrets.

The picture changed when jurisdiction over adulteration and misbranding of cosmetics was vested for the first time in the Food and Drug Administration by the Food, Drug, and Cosmetic Act, which

goes into full effect on July 1. The Federal Trade Commission always has had jurisdiction over cosmetic advertising, but this was strengthened by passage of the Wheeler-Lea amendments, dealing specifically with cosmetics, as well as foods and drugs. As a result of their new contact with Food and Drug, and their renewed contact with a strengthened Fed-

The Regional Business Outlook



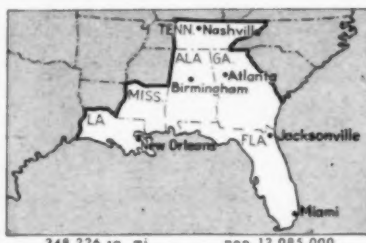
NEW YORK—As the center of the nation's security markets, Wall Street has been rushed for the past two weeks handling the big volume of stock market liquidation. Commissions have expanded along with employment in brokerage offices. This has been offset, so far as retail trade is concerned, by the sharp decline in security values. Paper profits have melted, margin speculators have been forced out; and investors have altered their spending ideas. Sales of luxury goods—automobiles, jewelry, high-priced apparel—will be particularly hit.

Spring Clothing Season Ends

In the clothing industries, which employ hundreds of thousands of factory workers, the disappointing spring season is drawing to a close. Production of women's coats and suits has run below last year's levels, while the dress manufacturers have been but slightly more active than in 1939, despite the better post-Easter sales.

Steel operations have turned up sharply at Buffalo, and payrolls at the metal and machinery plants in Syracuse are holding up, even though the seasonal decline has begun in auto parts manufacture. Factory payrolls in the district are running 10% to 15% better than 1939. Only in the Binghamton-Endicott-Johnson City area is industry lagging; shoe manufacturing, slower than a year ago, is the dominant industry there.

Recent rainfall has been better than normal in the agricultural sections, which should help crops and pastures. Current income is at about last year's levels, although dairy income has been boosted by an 80% price increase.



ATLANTA—Cotton prices have fallen a cent a pound since the German "big push," and, as cotton prices go, so goes the pulse of business in this Reserve district. The chief impact on consumer income will not come until the new harvest, for farmers have little of last year's crop left to sell right now. Nevertheless, the price drop is likely to affect retail trade in the coming weeks as cotton growers trim their purchases to lowered prospects.

This agricultural setback interrupted a rise in business based on improving industrial operations (BW—Apr 27 '40, p. 14). The Birmingham-Gadsden steel industry is busy—pig iron production is at capacity—and coal mining has been stimulated as a result. With a boom on in paper and pulp, an old mill at Bastrop, La., scheduled for dismantling, is to be put back into operation.

Oil Fields Developed

More than 40 wells have been brought into production by the continuing development of the Mississippi oil fields. Test drilling is under way in one-fourth of the state's counties, bringing ready cash to many farmers and boosting business in Jackson and Vicksburg.

The growth of commerce and industry in this area is indicated in New Orleans. Last year, construction there was the best since 1926. Industry is expanding all through southern Louisiana, particularly in oil refining and chemicals. Shipments through the port—second largest in the country—are up sharply over 1939, and new, diversified manufacturing activities are locating in this commercial center.



KANSAS CITY—Between the weather and the war, the farmer in this district is developing a case of nerves. Last week, wheat quotations dropped 25%; this week, they were highly erratic, even after the grain exchanges set a price-minimum. In addition, the war scare came just as growers were celebrating the break in the long drought here. The more-than-normal rainfall in April and May increased district wheat crop estimates by more than 10%, but this has been wiped out by the price drop.

Farmers Conserve Cash

Oklahoma and Kansas have gained most from the improvement in yield, and another 5% or so will be added to cash income from wheat by federal insurance payments (over and above premiums). Yet recent developments have so clouded the outlook for crop receipts that farmers hesitate now to spend for anything but necessities.

Bullish for this area, where meat and dairy products are so important (BW—Apr 27 '40, p. 14), is the relative strength in livestock quotations, which have held fairly steady despite the convulsions in other markets. Recent moisture, too, has improved the condition of pastures and ranges, promising cheap feed and wider profit margins for livestock raisers.

Activity in most of the stable consumer goods industries of this area—meat packing, crude oil output, petroleum refining, and flour milling—has been running along at about last year's levels. Coal mining has picked up; construction, after declining from 1939 in the first three months of the year, rose in April. Total industrial payrolls are slightly above 1939 levels.

The Regional Outlook surveys each week three of the twelve business areas of the country.

"WHEN A DIFFERENCE OF SECONDS REALLY COUNTS"...



KEY TO AMERICAN AIRLINES System



(1) Flight control (2) Station Agents office (3) Post Office (4) Maintenance Dispatch (5) Commissary (6) Contact Point, agents and mechanics (7) Booth for dispatch of planes, gas loads and ticket information (8) Baggage and Porters information and instruction (9) Maintenance operations (10) Transportation orders for meeting incoming and outgoing planes (11) Baggage control station (12) Ticket office and load computation station.

AMERICAN AIRLINES depends on **Teletalk** Amplified Intercommunication



These are the words of Mr. J. G. Flynn, Jr., Superintendent of Communications of American Airlines, Inc.

Operating twenty-four hours a day, a Webster Electric Teletalk system insures the clock-like handling of all outgoing and incoming American Airliners. It increases American Airlines operating efficiency and promotes passenger good will by saving time and making possible simultaneous communication between twelve different stations—some over 700 feet apart. Small sketch above shows complete coverage.

The immediate clearing of all information prior to plane departure or arrival is an airline problem. Teletalk has solved this problem because of its "split-second" speed, and because it provides for six two-way confidential conversations at the same time without noise, interference or cross-talk. Each station has an "all-call" emergency switch which permits each station to override all other stations.

There is a Teletalk model to meet every intercommunication requirement for every size of office, plant, building, or service. Detailed literature covering all models and all types of systems sent upon request.

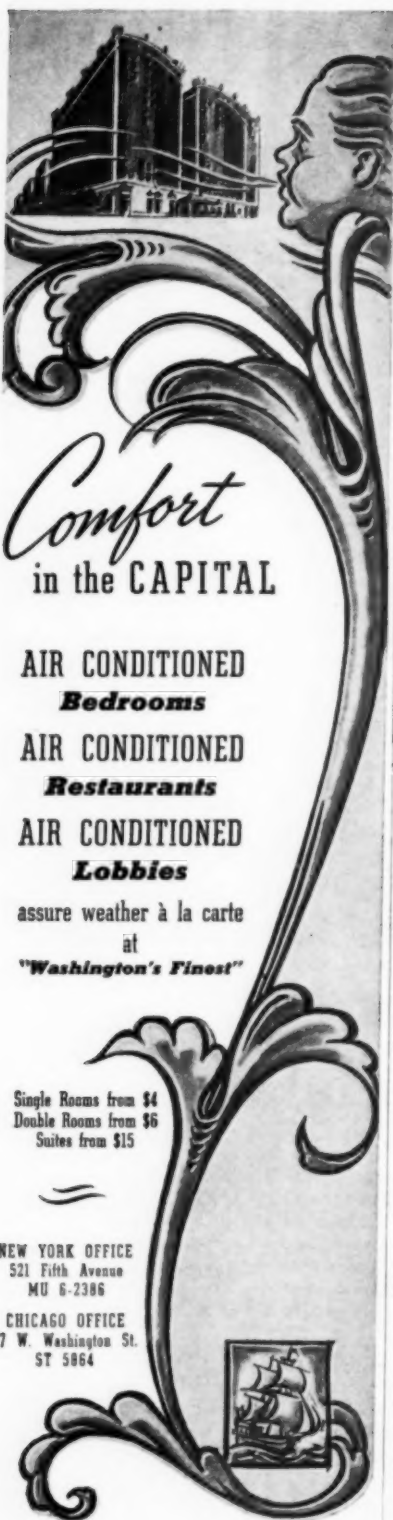
Teletalk permits the combination of Intercommunication, Paging, Signaling and Sound Distribution in one compact system. Licensed by Electrical Research Products, Inc., under U. S. Patents of American Telephone and Telegraph Company and Western Electric Company, Incorporated.

WEBSTER ELECTRIC COMPANY, Racine, Wis., U. S. A. Established 1909. Export Dept.: 100 Varick St., New York City. Cable Address: "ARLAB", New York City

Webster Electric

"Where Quality is a Responsibility and Fair Dealing an Obligation"

MANUFACTURERS OF TELETALK INTERCOMMUNICATION AND PAGING SYSTEMS • POWER AMPLIFIERS AND SOUND DISTRIBUTION EQUIPMENT • RADIO PHONOGRAPH PICKUPS • IGNITION TRANSFORMERS AND FUEL UNITS FOR OIL BURNERS



Single Rooms from \$4
Double Rooms from \$6
Suites from \$15

NEW YORK OFFICE
521 Fifth Avenue
MU 6-2386

CHICAGO OFFICE
77 W. Washington St.
ST 5864

**The Air Conditioned
MAYFLOWER**

WASHINGTON, D. C.
R. L. POLLIO, Manager

eral Trade, industry leaders have no illusions as to how they stand with the government. Steve Mayham, director of T.G.A.'s Board of Standards, told the convention that conferences with Food and Drug officials "indicates clearly that the authorities in that department hold no very high opinion of the efficacy of cosmetics."

The Ideal Label

T.G.A. General Counsel Hugo Mock added: "From this (government's) point of view, the ideal copy for a label would be this: 'This is Cold Cream. It is not good for anything.' Perhaps I am too optimistic. The government may claim that it is not cream and that it is not cold."

In suggesting a cooperative scientific approach for the industry, Mayham said that his ultimate dream was a "U. S. Cosmeticopoeia" established along the lines of the official book of standards for the drug industry, the U. S. Pharmacopoeia. He announced the organization of a "practical-minded" Scientific Advisory Committee for the industry to deal with raw material standards and suggested, as a further program, the intra-industry exchange of scientific material under the supervision of the Board of Standards.

Several speakers pointed with pride to the fact that advertising or label copy approved by the Board of Standards (which reviews such copy for members when requested to do so) has never been subject to enforcement action by either Food and Drug or Federal Trade. The industry was also pleased with the association's activities in securing a satisfactory settlement of the excise tax problem by an amendment to the revenue law which, together with the regulations issued under it, was estimated by the Treasury to reduce the industry's \$10,000,000 tax bill by about 50%.

Patman Hearings End

Chances for chain-store tax action this session are remote; subcommittee's course doubtful.

AFTER SEVEN WEEKS of repetitive testimony, hearings on the Patman chain-store tax bill dragged to a weary close last week. If possible, chances of any action on the bill at this session appear more remote than when the hearings started on March 27.

"Farmer Bob" Doughton, chairman of the House Ways and Means Committee, performed a minor miracle when he appointed a seven-man subcommittee to hold the hearings that satisfied both the chains and Patmanites. Both sides claimed a majority vote in the subcommittee consisting of Democrats McCormack (chairman), Boehne, Duncan, and Dingall, and Republicans Crowther, Knutson, and Woodruff. Pros and antis

still claim majorities, but the chains are talking more confidently than when the hearings started.

Record of the hearings ran to 52,000 typewritten pages, and until it is printed there's no chance of the subcommittee getting together in executive session. If the subcommittee does come through with its report, it's more likely to discuss the possibility of legislation to "freeze" chains at their present size, or regulation to prevent any abuses which may exist, than passage of the Patman bill as originally entered. And it's not certain the committee will go that far.

Dime Movies, New Style

WHILE ASSORTED manufacturers and promoters have been fighting the juke-box war on the nickel-in-the-slot movie basis during the past few weeks (BW—May 18'40, p.52), a Los Angeles company, Phono-Film, has been making money (dimes, not nickels) out of the old-fashioned screen and projector. Its machine uses the orthodox movie-house projection system; hence, cannot be used successfully except in dimly-lighted places. The other new juke-box movies work on the rear view principle, with the projector placed behind the screen instead of throwing a beam across the room.

Phono-Film's machines, called Phono-Matics, cost around \$750, plus an extra \$500 for the projector. First machines put on the market a month ago have all been snapped up, but plans are to up production to 150 a month before the end of the year. The company plans to make money on the films rather than the machines. Films, which it expects to turn out at a rate of one a week, will cost around \$2,500 each.

P.S.

INDEPENDENT DRUGGISTS, chain druggists, and drug wholesalers agreed in condemning combination deals and "specials" on cosmetics at last week's annual convention of the Toilet Goods Association. Speaker Fred J. Griffiths, president of the Pennsylvania Drug Co., said his company started using combination deals thirty years ago, and thought they were good then, but that current experience is that customers will not pay regular prices for articles they have once bought at a concession. . . . IOWA'S USE TAX, which put a 2% levy on articles purchased outside the state for use in Iowa (BW—Jan'39, p.16), was declared unconstitutional by the state's Supreme Court last week. The court held that Iowa has no power to regulate Sears, Roebuck's activities outside the state. Sears does an annual business of \$5,500,000 in Iowa, and would have had to pay a tax of \$110,000. . . . SIGN OF THE TIMES: an ad in a Los Angeles paper last week, offering special credit arrangements for aircraft workers at Farley's, a dry goods emporium.

MONEY AND THE MARKETS

FINANCE · SECURITIES · COMMODITIES

Purchasing Agents' Dilemma

Drop in commodity prices makes raw materials look cheap, and flurry in quicksilver shows delicacy of market's balance. Yet future is confused.

ARTIFICIAL STIMULANTS were administered to a few of the commodity markets this week, and they did some good. Action of the Department of Agriculture in cooperation with the grain exchanges, in establishing minimum levels below which prices would not be allowed to go, braced an important group of farm products. A program submitted by a group of Congressmen to Secretary Wallace for the stabilization of lard quotations helped this fat after a spectacular decline.

Nevertheless, the tone of the markets for commodities remains greatly confused. Prices of raw materials which the United States must buy abroad have been firm to strong. A very few domestic items have behaved substantially better than they did last week. Yet a long list of commodities have been fairly consistently beset by foreign developments.

The wool market, due almost entirely to the inability to judge the future, has had a fairly sharp decline. Much more drastic has been the break in hides, motivated not alone by uncertainty but by

Wall Streeter on SEC

FOR THE SECOND TIME in the history of the Securities and Exchange Commission, a man who may be described as a Wall Streeter is a member. He is Sumner T. Pike, named by President Roosevelt to fill the vacant Republican place left by George C. Mathews. Recently he has been a dollar-a-year man with the Department of Commerce and an adviser to the "monopoly" committee.

A graduate of Bowdoin College, he first worked for Stone & Webster in Boston. After several years in the oil business in Texas he joined American International Corp., an investment trust in New York, and from 1928 to 1938 was a vice-president of Case Pomeroy & Co., private investment firm.

the relatively slow pace of the shoe business as well. Cotton alternately has been sickly and sturdy, but hasn't, all in all, accomplished much of a comeback for reasons already stressed in these columns—the slackened activity of mills at home and the none-too-happy outlook for the export trade. The copper trade was glad to hear that France had been in the market for some 6,000 tons of brass, but the tone of the non-ferrous metals for the most part was no better than steady.

Talk of Reserves Helps Tin

Tin was a firm spot among the metals. Consuming industries persist in picking up tin whenever it is available at going prices around 55¢ a lb., and the renewed agitation for a government stock pile has acted to support the price. Rubber also derives some strength from the stock-pile argument, for it is another of the vital raw materials not produced in this country (action of the cartel in maintaining 80% shipment quotas for the last half of the year had little effect).

One of the flurries in this week's market came in quicksilver. Prices above \$90 a flask stimulate domestic high-cost production, and quotations have been above

"I'm glad I asked the bank to work out that problem"



To help you get money matters off your mind—

As one goes through life is there any escape from problems concerning money? No escape from payment of obligations, to be sure, but there is a very real relief from some of the cares and risks of many financial transactions.

A commercial bank with its resources and experience is prepared to take much of this burden from its customers' shoulders. For example:

A **manufacturer**, whose orders are running ahead of his capacity to fill them, brings his problem to the Bank. A loan enables him to enlarge his plant.

A **commodity dealer**, with funds tied up in staple goods, borrows against his warehouse receipts and releases his capital for active use.

A **restaurateur**, forced to turn away business during the luncheon peak, borrows to increase capacity—and profits.

A **salesman** buys Travelers' Letters of Credit to free his mind of currency problems on his trip abroad or in this country.

A **couple** buy Travelers' Cheques to protect their funds while "Seeing America."

A **young man** gets a Personal Loan to clear up old debts that worry him.

Why not bring your money problems to one of the 57 offices of this Bank?

**BANK of the
MANHATTAN
COMPANY**
NEW YORK



Chartered 1799

Member Federal Deposit
Insurance Corporation

I. B. A.'s Paid President



Pictures, Inc.

To modernize the management (and to meet problems of federal regulation) the Investment Bankers' Association has named its present chief, genial Emmett F. Connely, of Detroit, its first paid president.

that level for eight months. Recently producers have been getting \$180 a flask (and, with the Italo-Spanish cartel demanding \$200 in New York, imports have been held to a minimum). It appears likely that home production will reach 25,000 flasks this year, which is close to a normal year's consumption.

Meanwhile, the market is in precarious

balance. A few days ago the Navy asked bids on a quantity of anti-fouling marine paint which would require about 600 flasks of mercury as an ingredient. Two bidders appeared, and when they set about to buy the necessary quicksilver they ran the price of the domestically-produced metal up to approximately \$187-\$190 a flask.

New du Pont President

THE DU PONT MANAGEMENT long has prided itself on training most of its own executive talent for all of its many enterprises and divisions, and this week three men were called up from the ranks to take key positions. Named president is Walter S. Carpenter, Jr., 52 years old,

Investors Find Bargains in Stocks

THIS WAS BARGAIN HUNTERS' WEEK in the securities markets. All the war bulge had been knocked out of the prices of a majority of stocks. Many were available below the lowest levels of 1939. A dollar invested would buy a good deal more in point of corporation earnings and dividend yields than at any time for a long while.

There, in a nutshell, was the investment position of the stock market at this week's lows. Disregarding international affairs and basing conclusions strictly on what domestic corporations are earning and what they are passing on to stockholders, prices of dividend-paying shares looked mighty inviting.

Buying on the part of investors who were quick to take advantage of this opportunity was one of the principal sources of support in this week's market. It accounted in no small part for stocks' ability to "take it." Another all-important source of support came from the people who had sold out at higher prices and wanted to get back into the market. Much less important was the buying done by speculators who jumped in to scalp quick profits and by short sellers who covered as the decline slowed down.

Investors didn't have to comb the

stock list to find shares that looked attractive. They could at a glance single out dozens of old-line favorites that were down anywhere from 10% to 30% from the year's highs. Many of them were at or near their 1939 lows, and most of them face an outlook fully as good as if not very much better than in the early months of '39.

The Outlook—and Yields

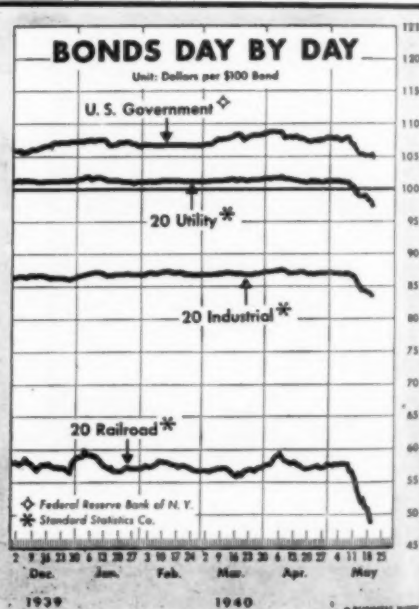
Take, as examples, a couple of the "widows-and-orphans" stocks, Pennsylvania Railroad and American Telephone & Telegraph. Shares of the Pennsy on Tuesday practically duplicated last year's low of \$15 a share. On Wednesday, the road's directors declared a dividend of 50¢ a share and President M. W. Clement told reporters that it seemed certain this payment would be earned comfortably during the first half of the year. If the road does as well in the last half, and is able to give stockholders \$1 a share for the year, the stock would yield 6½% annually at a price of \$15.

American Tel and Tel also virtually duplicated its 1939 low of \$148 a share at bottom prices on Tuesday. That this company paid \$9 a share in dividends each year over the troubled

1930s—whether earned or not—is well known. Thus there isn't much doubt about the dividend being continued now that it is being covered by current earnings with a bit to spare. A. T. & T., at a price of \$150 a share, returns a dividend yield of exactly 6%.

Higher yields were abundant in the stocks of scores of major industrial companies. These, of course, include concerns whose earnings are volatile. They are not, however, corporations whose securities would be rated by the worst pessimist as extraordinarily speculative. You could have bought Chrysler and General Motors on Tuesday at prices to yield about 10% (figuring yields from dividends actually paid in the last 12 months).

Shares of leading metal companies like American Smelting & Refining and Kennecott Copper were available at yields of 10% (also computing the yield in the light of the last 12 months' dividends), and the two major mail-order houses' stocks sold to yield 7% to 8%. Of the investment rails, Louisville & Nashville drew particular attention when it sold below \$40 a share (that's materially lower than Norfolk & Western and Union Pacific and appeals to odd-lot buyers).



who joined the company fresh out of Cornell University late in 1909—and he already had had du Pont experience during the summers of 1907, 1908, and 1909. This is only the second occasion since the company was founded in 1802 that anyone other than a du Pont has held the top executive position.

Other promotions include that of Angus B. Echols, a vice-president, to chairman of the finance committee, and of J. B. Eliason, treasurer, to a vice-presidency and a place on the board of directors. Pierre S. du Pont has retired as chairman of the board and Lammot du Pont has relinquished the presidency to become chairman. Irenée du Pont has retired as vice-chairman of the board. The changes in executive personnel were attributed to the dual desire of bringing along younger men and of securing more leisure for the men stepping aside.

Exchange Economizes

THE BUSINESS of running stock exchanges just isn't profitable these days, but there always is an opportunity to adjust expenses more nearly to fit income. This is emphatically demonstrated by the audit of the Chicago Stock Exchange for the year ended April 30. Ten years ago the market's expenses were almost \$500,000 and as recently as 1937 they topped \$300,000. For the year just ended they had been pared to \$205,151 and, even though income was below that of the previous 12 months, the operating loss was cut from \$107,699 to \$87,113.

In June, 1939, the governors determined to convert its investments into cash pending an anticipated "major change in investment market conditions." This put the exchange in an extremely liquid condition, but it also eliminated the income formerly derived from investment holdings.

P. S.

FACED WITH THE PROBABILITY that dissenting stockholders would block the plan for merging the Atlas Corp. and Curtiss-Wright Corp. (BW—Apr 27 '40, p17), Floyd Odlum, president of Atlas, secured consent of the aircraft company's management to call off the proposal . . . IT HAS BEEN APPARENT for some time that Congress wouldn't pony up the kind of money required for a national power grid (BW—Dec 9 '39, p40), so the advocates of a \$190,000,000 project to link lines from Maine to Missouri as a defense precaution have finally given up hope for this session . . . REPRESENTATIVES of the country's major investment trusts and the Securities and Exchange Commission have gotten together on just about everything (excepting a few points of wording) for changes in the proposed bill to regulate the trusts. This virtual agreement follows the trusts' suggestions as to how the bill might be made acceptable.

BUSINESS ABROAD

FOREIGN TRADE • INTERNATIONAL AFFAIRS • FOREIGN INDUSTRY

Economic Battle Lines Shift, Too

Emergency powers bill means Britain now uses totalitarian methods to fight the totalitarians. Chances for Soviet-Allied trade treaty improving.

THE ROAR of battle in northern France distracts world attention from economic moves which shift to meet the new crisis. On Wednesday a grim British Parliament passed the emergency powers bill. This measure conscripts citizens, labor, industry, wealth for empire defense. The government takes over direct control of munitions plants, is empowered to take over all others. Wages and profits will be set by the authorities. The excess profits tax is raised to 100%. It justifies prophecies that totalitarian methods must inevitably be employed against the totalitarians.

Soviet Russia, remembering that Hitler admittedly covets her Ukraine grain fields and petroleum deposits, is dismayed by German military successes. Stalin wants an attenuated war exhausting to both sides, not a swift Reich victory that would encourage Hitler to resume his "march to the East." Result: Better chances for a Soviet-Allied trade pact

and intensified trade negotiations between the Soviet Union and European countries "reserved" by Germany.

The Soviet-Jugoslav trade pact renews an ancient friendship and gives Mussolini another problem to deal with in the Balkans. Jugoslavia mobilized early in the week. On Wednesday Rumania went on a full war footing with over 2,000,000 men mobilized for military service.

The war in China drags toward a finale. Last week Shanghai reports declared that preliminary peace talks between Chungking and Japan were being held in Hongkong. Japan was said to have agreed to evacuate Central and South China, holding Northern China and its railroads. Economic cooperation and control of strategic ports were considered. This corroborates other signs that Japan is beginning to give at the seams. Whether China will give her enemy time for repairs is a question.

Mexico Pays the First Instalment



In accordance with the agreement recently reached between the Mexican government and the Consolidated Oil Corp. over Consolidated interests in Mexico which had been expropriated by the government, Ambassador Francisco Najera (left) last week

handed over his government's check for \$1,000,000 to Col. Patrick J. Hurley, former Secretary of War, now representing the Consolidated Oil Corp. and M. L. Gosney, treasurer of the corporation. It's the first instalment of a total payment of \$8,500,000.

Canada's War Budget

It's going up, but sentiment divides on whether to tax heavily now or take long-range basis.

OTTAWA (Business Week Bureau)—Shocked by the tremendous scope of all-out war and the gravity of England's situation, Canada's budget-makers have increased estimated war expenditures for the current year to \$700,000,000—a \$200,000,000 jump from a week ago.

As the Canadian parliament responds to pressure for an increased war effort, two men stand out: Finance Minister Ralston, chief budget-maker, and ex-Premier Arthur Meighen, gauged by many political observers to be the most powerful figure in Canadian public life today.

Ralston is under pressure from two groups of tax experts in Ottawa which champion opposed forms of war finance and upon his decision between them depends the final character of Canada's first regular war budget. One set, led by Bank of Canada and Finance Department heads, wants to finance the war the hard way. Their aim is to have Canadians feel the war cost now and to limit cumulative war debt hangover.

Making Citizens Feel Costs

If this school of tight war economy wins out, Canadian business will be hit by new excise imposts designed to divert money from luxury spending into war savings certificates. The classification of luxury commodities would be enlarged; private automobiles, household appliances, radios, cosmetics, liquor, and cigarettes would all be lumped together. Gasoline for pleasure driving, which now carries 7¢ or more per gallon provincial tax, might be bracketed with rail and bus travel tickets. The sales tax, now 8%, might be hoisted to 10%.

The other group, composed mainly of experienced trade and taxation officials, favors the maintenance of business buoyancy. It sees more promising long-range results in permitting revenue sources to expand by an avoidance of restrictive tax pressure.

Ex-Premier Arthur Meighen is a dark horse. If the war continues to go badly for the Allies it might bring about the overthrow of the newly-elected Mackenzie King government through raising in the Commons the issue of unlimited participation. In the March general election, both the administration, which increased its majority, and the opposition stood against compulsory military service.

Meighen's return to the Commons, which the Conservative opposition is trying to engineer, would revive the draft issue. Even now discontent with the measure of Canada's war effort is increasing among parliamentary supporters of the administration.



Cottrell Electrical Precipitators and Multiclone Mechanical Collectors are both pioneer systems for the control of industrial dust, fog, fume and mist. Singly or in combination, these systems provide for the most efficient collection of all kinds of particles suspended in gases, for the recovery of values or the elimination of nuisances, or both.

Based on fundamental scientific principles, Cottrells, Multiclones and related equipment have been specialized to meet the needs of every industry in which finely divided liquids or solids present problems in employee or property hazards or the loss of fugitive values.

Two descriptive Booklets are available to executives without obligation.



Typical Cottrell collecting from 20% to 30% of entire raw material input at a cement plant.

WESTERN PRECIPITATION CORPORATION

1018 W. Ninth St., Los Angeles, Cal. • 405 Lexington Ave., New York • 140 S. Dearborn St., Chicago, Ill.

PRECIPITATION COMPANY OF CANADA, LTD.

1010 St. Catherine Street, W., Montreal, Quebec

Holding your own as a business executive—



This Library Tells

- How to organize a single department or a whole business . . . plan and control its workings . . . provide and maintain the most happy and efficient personnel.
- How to keep the life-blood flowing in business . . . where and how to get money . . . how to utilize it . . . how to keep the business in sound financial condition.
- How to reduce credit losses . . . handle the important elements of credit policy . . . modernize your collection system . . . write better letters . . . put the company's correspondence on a more economical and effective basis.
- How to lay out a workable approach to marketing methods . . . improve the sales organization . . . develop promotion ideas . . . stimulate results in any of the several avenues of marketing.
- How to do more work yourself . . . conserve and direct your energies . . . and how to handle scores of problems, small and large, detailed aspects of these important fields of business activity.

clarified and made easier with the aid of this new, carefully-planned, authoritative Library. A complete, practical home-study course and reference library in successful modern business management essentials and methods.

Milton Wright's **LIBRARY OF BUSINESS MANAGEMENT**

6 volumes, 1973 pages

USE this Library for immediate help in specific problems, small and large—also to master the definite patterns underlying methods, get the knowledge of all business that cannot be gotten from the day's job alone. Wouldn't you like to organize your whole approach to business once and for all—to check on the worth of your experience and to supplement it where necessary with the proper fundamental viewpoint?

The need for this sort of help, and the most practical means of meeting it, have been the sole standard by which Milton Wright has sifted and chosen material and organized it, in this Library. From it you can get complete and essential training, in the most graphic and business-like way, in the elements, guideposts, successful methods of modern business management.

Low Price—10 Days' Examination—Easy Terms

Under our offer get all six books on approval. Read them, make comparisons, look up specific problems, use them as you would after purchase. If this 10-day test shows value, pay in small installments, while you use the books. Send the coupon today.

EXAMINATION PRIVILEGE COUPON—MAIL IT TODAY

McGraw-Hill Book Co., 330 W. 42nd St., N. Y. C.
Send me Milton Wright's LIBRARY OF BUSINESS MANAGEMENT 6 volumes, for 10 days' examination on approval. In 10 days I will send \$3.00, and \$3.00 monthly until \$15.00 is paid, or return the books post-paid. (To insure prompt shipment write plainly and fill in all lines.)

Name

Address

City and State

Position

Company BW-5-25-40



This is the seal used by 200 capital stock fire insurance companies. Through local insurance Agents and Brokers, these companies provide sound protection at a predetermined price. And, in association, they perform public services of national scope that are making life and property safer from fire.



THE NATIONAL BOARD OF FIRE UNDERWRITERS
85 John Street, New York Established 1866

"I feel sure that any business man who follows the trend of business in your weekly service will make more money than he would without the aid of it. We are operating in times when we need reliable, advance business information, no doubt more than we ever have. Business Week is doing a real job for us."

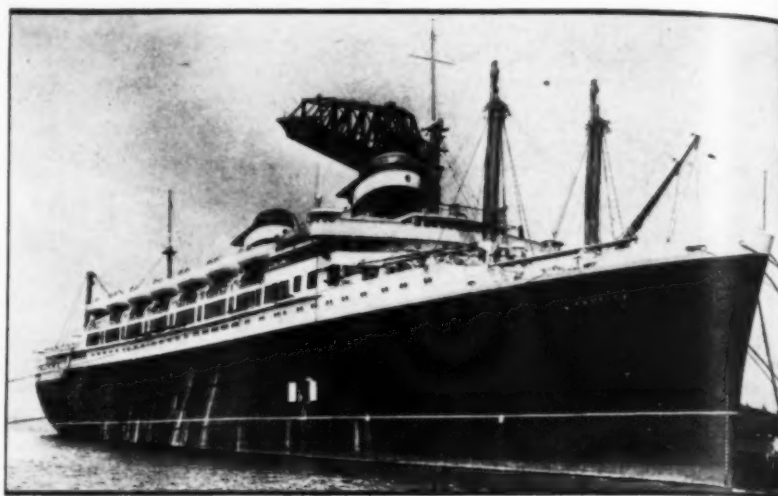
AUTOMOBILE DEALER



Victoria
TOILET TISSUES

VICTORIA PAPER MILLS CO., FULTON, N. Y.

Progress on the America



Her funnels, superstructure, and lifeboats already complete and in place, the \$18,000,000 liner America will soon be the pride of the United States Lines fleet. Largest passenger ship ever built in the U. S., she's 723

feet long, will carry 1,221 passengers and a crew of 639. Her builder, Newport News Shipbuilding & Drydock Co., has just been purchased by a group of investment trusts and bankers (BW—May 18 '40, p. 24).

Canada Weighs New Federal Setup

Dominion will assume all provincial debts and provinces will give up right to levy income, corporation, and inheritance taxes if draft constitution is adopted.

OTTAWA (Business Week Bureau)—Canada has acquired the draft of a new constitution which would transfer to the Dominion all provincial debts and all responsibility for unemployables.

If adopted, the new instrument will replace the 1867 Charter of Confederation under which the Dominion was formed from the provinces of British North America. The draft is now in the hands of parliament and the provincial governments, following a three-year survey designed to correct economic difficulties arising under the present federal setup.

In return for the benefits which the provinces would receive under the new arrangement, they would surrender to the Dominion their right to levy income, corporation, and inheritance taxes (income taxes are now imposed by some, but not all of the provinces).

Present federal subsidies to the provinces, calculated on a population basis, would be discontinued and replaced by annual national adjustment grants to enable the provinces to maintain public welfare services to a national standard without excessive taxation. These grants would be based on the individual needs of the provinces. In addition there would

be emergency grants to meet such situations as crop failure.

Responsibility for poor relief and other welfare services would rest exclusively with the provinces. They would have the choice of borrowing on their own credit in Canadian funds only or, if their loans were approved by federal authorities, on Dominion credit. Unemployment insurance and employment service, control of basic hours of work and minimum wages would be under federal jurisdiction instead of provincial as at present. Provinces would increase control of municipal financing.

Benefits for Business

Cost to the Dominion of the readjustment would be \$40,000,000 annually, offset in part by broadening of the income tax in consequence of the withdrawal of the provinces from that revenue field and by possible saving through greater central control of financing.

Advantages to Canadian business and the nation generally seen in the plan are:

Stimulation of national income through taxation reforms which shift burdens from business costs, marginal enterprises and sub-par living standards to surpluses;

Promotion of free movement of capital

and peo
simplified
the Dom
Conce
managem
widest c
Unifor
public a
develop
ment
needs;
Coordi
and bor
ing to tr

On t
budgets
be left
quarter
smallest
\$5,000,0
In Queb
cial reve
owing to
sponsibi
ties the
Montrea
present
With
Ottawa
to move
of the p
agreeme
conditio
conferen
ing the

Sovi

ore an
fair bi

As the
climax,
revealed
craftily
final sh
develop
greater
an amb
designs.
Sovie
gotiation
land, an
situated
from m
in Euro
tries, a
world.
routes
wonder
toward

Encro

Two
press h
pained
is negot
the oth
the fir
Plovdiv
ated t
describ

and people through uniform and greatly simplified taxation schedules throughout the Dominion;

Concentration of debt responsibility and management in one authority having the widest credit base;

Uniform standards of education and public welfare and generous provision for development expenditures through adjustment grants to provinces according to needs;

Coordination of taxation, expenditure and borrowing policies with policies relating to trade, exchange, tariff, and industry.

On the basis of average 1936-39 budgets, Canada's nine provinces would be left with surpluses ranging from a quarter of a million in the case of the smallest, Prince Edward Island, to nearly \$5,000,000 in that of the largest, Ontario. In Quebec, an overhauling of the provincial revenue system would be necessary owing to the greater share of welfare responsibility being borne by municipalities there. The plan would greatly assist Montreal and other Quebec cities from present financial difficulties.

With the backing of business, the Ottawa government will be encouraged to move for the earliest possible adoption of the plan. Greatest difficulty is securing agreement among the provinces. If war conditions permit, a Dominion-Provincial conference probably will be called following the current session of parliament.

Soviet Bids for Trade

Reports of deal for Swedish ore and participation in Balkan fair hint clash with Berlin.

AS THE WAR CRASHED this week toward a climax, cables from Berlin and Moscow revealed that Soviet Russia was moving craftily to protect her position in the final showdown. One interesting recent development is Moscow's bid for a greater share of Europe's foreign trade—an ambition which clashes with German designs.

Soviet plans are reflected in trade negotiations with Yugoslavia, Sweden, Finland, and other countries. Russia is badly situated geographically. She is isolated from most of her prospective customers in Europe's neutral and occupied countries, and hemmed in from the outer world. Germany stands astride the land routes to the west, and neutral observers wonder what attitude Berlin will take toward the Soviet aims.

Encroaching on Reich's Interests

Two reports carried by the German press have been received in Berlin with pained surprise. One declares that Russia is negotiating with Sweden for iron ore, the other that Russia is participating for the first time in the Balkan fair at Plovdiv, Bulgaria. The second report created the greater sensation since it described exhibits of Russian-made agri-

cultural machinery. Such equipment figures largely in the Soviet trade talks. The Third Reich considers agricultural machinery one of its special prerogatives.

In addition to trying to push Soviet manufactured goods, shrewd negotiators are making the most of raw resources. Cotton supplies are being offered to southeastern countries, cotton and oil to northern countries.

Cables from Moscow reveal that Soviet-Swedish commercial negotiations are proceeding with "progress satisfactory to both sides." Though Japanese trade representatives returned from western Europe last Saturday, Soviet-Japanese trade talks, broken off some weeks ago, have not yet been resumed.

Japan Must Scrimp

Army saddles nation with record budget, but big problem is what has to be done to spend it.

TOKYO (*Business Week Bureau*)—The new Japanese fiscal year has started off with an incredible ¥16,000,000,000 budget, equivalent to 63% of Japan's entire national income for 1939. A regimented economy might manage to throttle consumption to 37% of earned purchasing power and skim off the rest in taxes and forced savings, but the fact that most of the people in Japan have always lived just above the subsistence level would make it a somber task.

Japan's real problem, however, is not in getting the money but in trying to spend it. For a while it looked as if the army and navy would grudgingly consent to a slash in their appropriations as finance experts pleaded that a smaller working budget would buy all the warships, guns, tanks, and aircraft Japan can produce. Japan's industrial production has barely risen above the level of 1937 (the year the China "incident" began) and access to foreign materials and manufacturers is barred by an almost total lack of foreign exchange and a total lack of foreign credits.

Army Decides to Set Prices

But the army suddenly brushed aside all agencies in charge of the nation's economy. It announced that henceforth it would take a direct hand in the control of profits in munitions plants and set its own "fair" prices in order to get full values for its big budget.

The China "incident" no longer monopolizes the minds of Japanese army and navy men as the six-year armament replenishment plan gets under way. This is an armament expansion plan which is to prepare Nippon for a showdown with any conceivable combination of powers by 1946—when, it is hoped, most of them will be too exhausted to check Japan effectively.



HAVEN'T WE MET YOUR BREAKFAST BEFORE?

● Chances are, part of your breakfast this morning was in our refrigerator yesterday! That is, if you live in the East. Eggs or bacon, oranges or cantaloupe . . . every minute of every day modern Erie refrigerator cars are speeding perishables such as these to market.

What's picked fresh arrives fresh when Erie takes it through. That's why Erie now hustles more Western fruit and vegetables into New York and New England markets than any other railroad!

See for yourself how Erie service saves time when time means money. Call the Erie Agent on your next shipment—whatever it may be.

FOR REAL TRAVEL COMFORT...

Take the Erie between New York and Chicago. Enjoy the smoother ride made possible by Erie's well-cared-for tracks and efficient train operation. All modern air-conditioned equipment. Convenient service. Lowest fares.



Business Week Advertisers in This Issue

May 25, 1940

ALLIS-CHALMERS MANUFACTURING CO.....2nd Cover	THE MAYFLOW HOTEL.....50
AMERICAN TELEPHONE & TELEGRAPH CO.....12	Agency—NATIONAL ADVERTISING COUNSELLORS
Agency—N. W. AYER & SON, INC.	McGRAW-HILL BOOK CO., INC.....55
THE AMERICAN TOBACCO CO.....4th Cover	McGRAW-HILL PUBLISHING CO., INC.....53
Agency—LORD & THOMAS	NATIONAL BOARD OF FIRE UNDERWRITERS.....56
THE GORDON ARMSTRONG CO.....22	Agency—GRAHAM-MARSTON, INC.
Agency—THE GRISWOLD-ESHELMAN CO.	NEWELL-EMMETT CO., INC.....44
BANK OF THE MANHATTAN CO.....51	Agency—NEWELL-EMMETT CO., INC.
Agency—NEWELL-EMMETT CO., INC.	PAGE FENCE ASSOCIATION.....36
EDWARD G. BUDD MANUFACTURING CO... 5	Agency—REINCKE-ELLIS-YOUNG & FINN, INC.
Agency—N. W. AYER & SON, INC.	PATERSON PARCHMENT PAPER CO..... 4
BUELL ENGINEERING CO., INC.....37	Agency—PLATT-FORBER, INC.
Agency—W. I. TRACT, INC.	PORTLAND CEMENT ASSOCIATION.....20
CANADIAN PACIFIC RAILWAY CO.....44	Agency—ROCHE, WILLIAMS & CUNNINGHAM, INC.
Agency—KENTON & ECKHARDT, INC.	REPUBLIC RUBBER DIVISION LEE RUBBER & TIRE CORP..... 2
THE PHILIP CAREY CO.....21	Agency—WEARSTLER ADVERTISING, INC.
Agency—THE S. C. BARR CO.	ROBBINS & MYERS SALES, INC.....39
CARRIER CORP..... 6	Agency—ERWIN, WASEY & CO., INC.
Agency—CHAR. DALLAS BEACH CO.	SCOTT PAPER CO.....31
CITY OF BRIDGEPORT, CONNECTICUT.....46	Agency—J. WALTER THOMPSON CO.
COMBUSTION ENGINEERING CO., INC.....47	SHERWIN-WILLIAMS CO.....32
Agency—G. M. BARFORD CO.	Agency—T. J. MALONEY, INC.
CONNECTICUT GENERAL LIFE INSURANCE CO.....33	L. C. SMITH & CORONA TYPEWRITERS, INC.....28
Agency—EDWARD W. BOROOTHAM & CO.	Agency—NEWELL-EMMETT CO., INC.
COUNTRY GENTLEMAN.....23	STANDARD CONVEYOR CO.....38
Agency—McCANN-ERICKSON, INC.	Agency—KLAE-VAN PIETERBOM-DUNLAP ASSOCIATES, INC.
CYCLONE FENCE CO.....34	THE STUDEBAKER SALES CORP. OF AMERICA.....27
Agency—BATTEN, BARTON, DURNFINE & OSBORN, INC.	Agency—ROCHE, WILLIAMS & CUNNINGHAM, INC.
DOUGLAS AIRCRAFT CO.....42, 43	SUTHERLAND PAPER CO.....59
Agency—THE ESSIG CO., LTD.	Agency—THE L. W. RAMSEY CO.
ERIE RAILROAD CO.....57	THE TEXAS CO.....19
Agency—THE GRISWOLD-ESHELMAN CO.	Agency—NEWELL-EMMETT CO., INC.
FAIRBANKS, MORSE & CO.....10	TODD CO., INC.....3rd Cover
Agency—HENRI, HURST & McDONALD, INC.	Agency—THE MERRILL ANDERSON CO.
FELT & TARRANT MANUFACTURING CO... 17	UNITED STATES STEEL CORP.....41
Agency—N. W. AYER & SON, INC.	Agency—BATTEN, BARTON, DURNFINE & OSBORN, INC.
FRIGIDAIRE DIVISION GENERAL MOTORS SALES CORP.....29	VAUGHAN MOTOR CO.....18
Agency—LORD & THOMAS	Agency—VAN SANT, DUGDALE & CO., INC.
GENERAL BOX CO.....40	THE VICTORIA PAPER MILLS CO.....56
Agency—THE BUCHEN CO.	Agency—VAN SANT, DUGDALE & CO., INC.
THE B. F. GOODRICH CO.....1	WARREN WEBSTER & CO.....8
Agency—THE GRISWOLD-ESHELMAN CO.	Agency—WILLIAM JENKINS ADVERTISING
HOUSEHOLD FINANCE CORP.....26	WEBSTER ELECTRIC CO.....49
Agency—BATTEN, BARTON, DURNFINE & OSBORN, INC.	Agency—J. R. HAMILTON ADVERTISING AGENCY
THE INTERNATIONAL NICKEL CO., INC... 9	WESTERN PRECIPITATION CORP.....55
Agency—MARSHALL & PRATT, INC.	Agency—THE MCCARTY CO.
LEHIGH PORTLAND CEMENT CO..... 3	WILLSON PRODUCTS, INC.....36
Agency—FOX & MACKENZIE	Agency—JAMES G. LAMB CO.
P. R. MALLORY & CO.....22	WHITING CORP.....35
Agency—THE ATKIN-KYNETT CO.	Agency—THE FENSHOLT CO.

Red Crops Look Good

Moscow (Cable)—Reports to the Kremlin on Russia's program to strengthen her internal economy are encouraging. For example, the grain-sowing campaign, after a late and unpromising start, seeded 66,600,000 hectares (164,502,000 acres) by May 15, compared to 67,158,000 hectares recorded for the same date last year.

Prospects are for a good harvest. Increased cotton planting has been ordered, and a 120-mile railroad is planned to connect the Karatau phosphate deposits with Turksib. This will greatly shorten the haul of fertilizer to the cotton fields. The Karatau deposits contain 100,000,000 tons of phosphates that are easily mined and are usable unrefined.

After 23 days, 70,000 collective farmers have completed construction of the 30-mile Tsalyk irrigation canal, which brings water to the fertile Tsalyk Plateau. Also, the 150-mile Gorky-Kulebatki highway has been begun by collective farmers, who plan to complete the project by Sept. 1.

Food is now plentiful in Moscow—eggs, butter, milk, meat, cereals, can be bought without waiting in a queue. They are sold in reasonable quantities. However, retail prices of these products are above last summer's levels.

Nazi Beer Runs Low

Berlin (Cable)—People are bearing easily the latest privations of the war—shortages in cigarettes and beer. The obvious impossibility of direct rationing of consumers by discriminating between smokers, drinkers, and abstainers necessitates roundabout rationing by restricting the supplies of individual tobaccoists and Biergärten.

At present, retailers are only getting about 60% of their normal supplies of cigarettes, and about 50% of cigars. Both are issued on a daily basis and dealers usually manage to sell out their quotas to waiting queues early in the morning, thereafter closing for the day.

Labor Poachers Busy

LONDON (Cable)—Because of shortages of skilled labor, companies have resorted to extensive "poaching" on each other's labor preserves, using advertising to offer a variety of inducements to skilled mechanics to leave their jobs and take new positions.

This situation has prevailed particularly in the machine tool industry, but negotiations are under way to stop the practice—possibly by reintroduction of regulations which were in effect during the last war. Negotiations are also progressing between employers and labor unions concerning the increased employment of women in the engineering field.

THE TRADING POST

For Uniform Business Laws

IN THE MAIL-BAG this week I find a letter from Leo Barnett, of Oklahoma City, that touches on this red-hot subject of interstate trade barriers. He writes an "Open Letter to all Political Parties."

"I wish," says Mr. Barnett, "to call attention to one cause of continued unemployment and postponed recovery. It lies in the structure of our country's political subdivisions. The original 13 colonies were sovereign states, forced to surrender some sovereign rights when they federated into the United States in order to function properly."

"As the country grew and new states were admitted, they followed the pattern of the original colonies—each state trying to control human activities and property rights, without regard to the laws of other states."

"Business, on the other hand, changed from the locally owned and operated concern of pioneer days to the national corporation, owned by investors in all states, but incorporated under state laws and subject to the whims of 48 law-making and taxing legislatures, which has required costly lobbies and legal departments to obtain fair operating conditions. The movement of merchandise and farm products is hampered by state laws, taxes and licensing in interstate commerce."

"The point I want to make is that this modern commercial nation should have uniform laws and taxes in all states, eliminating wasteful legislation and permitting commerce to move freely, so that business can function and earn a profit; or else the profit system is doomed."

What Mr. Barnett says is very much to the point, especially when we recall that the chief reason for calling the convention that wrote the federal constitution was the very situation he describes.

It was the effort of the individual states to achieve economic advantage and the resultant economic strife that prevented national unity under the Articles of Confederation—our first attempt to set up a nation. And as the preamble of the new constitution set as its first objective the formation of "a more perfect union," there can be little doubt that the "interstate commerce clause" was intended to be the chief instrument to attain that objective.

By it, the states surrendered to the federal government the right to "regulate commerce with foreign nations, and among the several states" and signed away their rights to "lay any imposts or duties on imports or exports, without the consent of Congress." Even Congress

was forbidden to give preference "by any regulation of commerce or revenue to the ports of one state over those of another" or to oblige vessels bound to or from one state "to enter, clear, or pay duties in another." Such was the fear of the interstate rivalry that had prevailed under the Confederation and the desire to effect economic unity throughout the nation.

That principle, of course, is the cornerstone of our amazing national growth. It staked out the broadest free-trade area in the world and it invites every American producer to regard every one of his 130,000,000 fellow citizens as a prospect for his services. No one can compute how much that has meant to our economic and social progress. The story is far too big even to sketch here.

That is why it is a bit pathetic to have so many of the states now scheming schemes to evade the intent of the constitution and to create new barriers to interstate commerce. And that is why it is even more pathetic that the attitude of a federal administration toward American business should cause even business leaders, who know and understand all this, to look the other way while those evasions are in process.

If the power to regulate interstate commerce, conferred by the constitution on the federal government, is to be applied over larger and larger areas of business and in closer and closer detail, the attitude of the government toward our business institutions becomes a matter of vital importance. If it be hostile or subversive—or even obstructive—it is natural that everyone whose business can be considered as interstate—and whose cannot?—will distrust the extension of federal powers. And in such distrust, they may well be tempted to seek in the extension of state rights some check on the regulation of the federal government. That is to say, they may be willing to sacrifice some part of our vital asset of economic unity in the hope of preserving the even more vital asset of economic freedom.

National economic unity should be one of our most valuable assets, and it can be realized, as Mr. Barnett points out, only by uniform, nation-wide regulation of commerce. BUT—if we are not to go totalitarian on the European model, if we are not to pervert uniform regulation into centralized control, we must be mighty sure to maintain a federal government committed beyond question—by deed as well as by word—to the support of the economic institutions that are the essence of the American system.

W.T.C.

PACKAGING

New, Handy Potato Chip Box Eliminates Liner

WITHOUT the aid of either a glassine or wax liner in the box, The Wolverine Potato Chip Co., Detroit, Michigan, is packaging their deliciously fresh potato chips in newly-developed moisture-proof, grease-proof cartons made by Sutherland Paper Company, Kalamazoo, Michigan.

Attractively designed, using process color printing from direct color photography, these new Wolverine Potato Chips boxes readily attract the shopper's eye and whet the appetite for the delicious potato chips pictured so naturally and appetizingly on the carton.



UNIQUE in construction, the Wolverine package is an unusually handy Hostess Service Container. A tab on the side of the carton is pulled, and an entire panel lifts from the box to permit serving directly from the container. The crumbling and breaking that usually results from putting the hand in a bag for the chips is thus eliminated.

Because of the perforation for the opening panel, the carton is further protected with a transparent cellulose wrapper. Wolverine Potato Chips are specially processed to reduce calorie content. Their manufacturer explains in the carton copy that the chips are less fattening and are guaranteed to be fresh.

Moistureproof—Greaseproof Cartons Aid In Merchandising Many Food Products

SUTHERLAND's laminating equipment makes it possible to produce moistureproof-greaseproof and other special types of boxboard. Many food products that heretofore could not be merchandised properly because they lost savor and freshness are now effectively packaged in Sutherland moistureproof-greaseproof containers.

(Advertisement)

May 25, 1940

What It Means to Business

THE GERMAN DRIVE to the English Channel this week assured quick adoption of the President's program to speed up war preparations. But the proposed expenditure of less than \$3,500,000,000 in the coming fiscal year is only a small beginning; of that, business men can now be certain.

Already, in Washington military circles, the talk focuses on the cost of a "major war effort"—meaning an operation on World War scale. In the 1919 fiscal year costs ran to \$11,000,000,000 (chart, p. 15). A major war effort in the '40s would come higher.

Army officers testified before the House Military Affairs Committee this week that 25% to 40% of the German nation's energies and resources have been turned into armaments during the last six years. With this country's greater natural resources, manpower, and industrial advancement, a diversion of 25% to 40% of the national energy would not be necessary under ordinary circumstances to keep pace in an arms race. But since we have started six years behind, a vast outlay is required if we are to attain military parity with Hitler's industrial machine.

In a major war at least four times the \$3,500,000,000 we plan to spend in 1941 would be needed, and quite conceivably five to six times that—or anywhere from 20% to 30% of the peacetime national income. However, it is not possible to jump immediately up from a \$3,500,000,000 to a \$14,000,000,000 military effort. It takes time to shift a nation from a peace economy to a war-preparation economy and thence to a war economy. Right now we are at the very beginnings of a war-preparation economy.

That does not mean that we are due to go to war; but it does mean that we are getting ready to go if we must. Initially, haste will have to be made slowly. For the United States has no such munitions works as Sweden's Bofors, Germany's Krupp, France's Schneider, or Britain's Vickers, from which an army can buy out of stock a ready-to-use anti-aircraft gun complete with ammunition.

IN THE UNITED STATES the art of making munitions is kept alive by six government arsenals; but in a major war, these arsenals could supply barely 10% of the country's requirements. Private industry would have to do 90% of the job. Thus, war preparation over here means getting private industry ready to produce everything necessary to destroy an enemy.

The work of preparing industry for the possible changeover from peace production to war produc-

tion began in 1939 when \$2,000,000 of educational orders were placed; in the current fiscal year \$14,000,000 of such orders were allotted; and in 1941 the total will soar. But the country's industrial plant still needs to be "educated" up to capacity output.

First thing on the defense docket is to expand airplane production from the current rate of some 400 planes per month to well over 1,000 by the end of the year; and there will be no stopping then. Machine tool production also will have to be expanded. This is the bottleneck war industry, and it is already jammed to capacity.

Once machine tools are available, industry could get set for a war effort in a comparatively short time—and orders could go out in large volume to automobile, farm implement, railroad equipment, metal-working, and a multitude of other companies. In all, 1,200 companies have been tagged as being in a position to supply critical war manufactures, and 10,000 others are on the "accepted" list.

AS IS TO BE EXPECTED, the lion's share will go to the heavy industries—the steel, airplane, railroad equipment, shipyard companies. And that, in and of itself, will be a factor to cushion against a widespread general business decline over the longer term. The shift from a peace economy to a war-preparation economy will gather accelerating force month by month this year. But not until well into 1941 will industry really begin getting into production.

And then a \$3,500,000,000 defense outlay will seem miniature. For, with industry able to deliver—planes, tanks, shells, etc.—on an assembly-line scale, the government really will be able to go out and buy. As things are now, because of the change-over interim, there is even some question whether Mr. Roosevelt in the 1941 fiscal year will actually be able to spend the money Congress appropriates.

Published weekly by McGraw-Hill Publishing Company, Inc., 330 West 42nd St., New York City. Tel. MEdallion 3-0700. Night Tel. MEdallion 3-0731. Price 25¢. Subscription: \$5.00 a year, U.S.A., possessions, and Canada. Other foreign, \$7.50. Cable code McGrawhill.

Willard Chevalier
Publisher

Ralph Smith
Editor

Paul Montgomery
Manager

Managing Editor, Louis Engel • Economist, J. A. Livingston • Foreign, John F. Chapman • Finance, Clark R. Pace • Labor and Management, M. S. Pizele • Marketing, J. F. Huston • Production, W. W. Dodge • News Editor, Edward Hutchings, Jr. • Copy Chief, Wayne Jordan • Law, J. A. Gerardi • Editorial Assistants, Edward Bastian, Carl Lloyd, Harry L. Shellen, Christopher C. Vogel, Phyllis White • Statisticians, Richard M. Machol, Sanford Parker • Librarian, Ruth Wall • Chicago, L. W. W. Morrow • Detroit, Atiel F. Denham • San Francisco, Cameron Robertson • Washington, McGraw-Hill Bureau: Irvin Foss, Special Correspondent • Business Week Foreign Bureaus in Ottawa, London, Paris, Berlin, Moscow, Tokyo, Buenos Aires.

NE
940

ational
year
and in
indus-
up to

expand
f some
he end
then.
be ex-
and it

could
short
time to
pment,
panies.
eing in
es, and

go to
railroad
in and
a wide-
r term.
repara-
month
41 will

ay will
deliver
bly-line
go out
change-
whether
ctually
ates.

Inc., 330
ight Tel.
U. S. A.,
grawhill.

ntgomery
Manager

F. Chapman
F. Huston
ayne Jordan
L. Sheldon,
ord Parker
Francisco,
correspondent
uenes Alm.

WEEK
AGO

YEAR
AGO

NESS
ATOR